



CHANDIGARH TRANSPORT UNDERTAKING

O/o Director Transport UT, Chandigarh,
Plot No. 701, Industrial Area Phase-1, Chandigarh.

**REQUEST FOR PROPOSAL FOR FABRICATION OF 40
NOS. ORDINARY BUS BODY ON DIESEL BS-IV FES
PASSENGER CHASSIS (TATA MODEL 1613) HAVING
5545 MM WHEEL BASE FOR INTER-CITY OPERATIONS**

XXXX, 2017

Director,
Chandigarh Transport Undertaking,
O/o Director Transport UT, Chandigarh
Plot No. 701, Industrial Area Phase-1,
Chandigarh
Tel No: 0172-2679002
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ORDINARY BUS BODY ON DIESEL BS-IV PASSENGER CHASSIS
(TATA MODEL LPO 1613) HAVING 5545 WHEEL BASE FOR
INTER-CITY OPERATIONS**

E-PROCUREMENT SYSTEM

Time Schedule for the bids:

Bid Reference	:	Dated: XXXX/2016
Date of commencement of downloading of bid document	:at 11:00 am onwards
Pre-bid meeting	:	24/01/2017 at 11:30 am
Last date and time for bid submission/uploading of bid in e-procurement platform http://etenders.chd.nic.in	:	08/02/2017...Upto 02:00 pm
Date and time of opening of technical bids	:	The bids will be opened online by the Authorized Officers/Committee on 08/02/2017...Hrs at 03:00 PM.....
Date and time of opening of Financial Bids	:	Will be intimated to technically qualified bidders
Place of opening of bids and address for communication	:	Chandigarh Transport Undertaking O/o Director Transport UT, Chandigarh Plot No. 701, Industrial Area Phase-1, Chandigarh

Note: 1) In the event of the specified date of opening of bids being declared a holiday for the Purchaser, the bids shall be opened on the next working day at the same time and venue.

2) Completed bids shall be uploaded on the e-procurement platform by the Bidders using their user ID and addressed to the **Director, CTU** in the manner described under Instructions to Bidders Section II of Bid Documents on or before the stipulated date & time.

SECTION -1
DISCLAIMER

This RFP is being issued by Divisional Manager, CTU & Director Transport, Union Territory, Chandigarh for inviting E-tenders for Fabrication of 40 nos. Ordinary bus body on Diesel BS-IV Passenger Chassis (Tata Model LPO 1613) having 5545 mm wheel base for inter-city operations, (hereinafter called “buses”) on such terms and conditions and technical specifications as set out in this RFP document and as per latest Bus Body Code AIS-052/ARAI/CMVR guidelines.

It is hereby clarified that this RFP is not an agreement and is not an offer or invitation by Chandigarh Transport undertaking to any party hereunder. The purpose of this RFP is to provide the bidder(s) with information to assist in the formulation of their proposal submission. This RFP document does not purport to contain all the information bidder may require. This RFP document may not be appropriate for all the persons and it is not possible for Chandigarh Transport Undertaking to consider particular needs of each bidder. Each bidder should conduct its own investigation and analysis and should check the accuracy, reliability and completeness of the information in this RFP document and obtain independent advice from appropriate sources. Chandigarh Transport Undertaking and their advisors make no representation or warranty and shall incur no liability financial or otherwise under any law, statute, rules or regulations or otherwise as to the accuracy, reliability or completeness of the RFP document.

Chandigarh Transport Undertaking may, in their absolute discretion, but without being under any obligation to do so, update, amend or supplement in information in this RFP document.

CONTENTS OF REQUEST FOR PROPOSAL (RFP) DOCUMENT

The RFP document comprises of the sections as listed below and would additionally include any Addenda issued before the due date of submission of the RFP.

Any reference to the RFP document includes all the contents unless specifically mentioned otherwise.

S. No.	Particulars	Page No.
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SECTION- II NOTICE INVITING TENDER (NIT)-
CHANDIGARH TRANSPORT UNDERTAKING
(PLOT NO.701, INDUSTRIAL AREA, PHASE –I, CHANDIGARH)

E—TENDER NOTICE

Chandigarh Transport Undertaking (CTU) invites e-Tender from Manufacturers/Fabricators for Fabrication of 40 nos. Ordinary bus body on Diesel BS-IV Passenger Chassis (Tata Model LPO 1613) having 5545 mm wheel base for Inter-City operations.

Eligibility Criteria/Documents to be attached):

1. The average annual turnover from fabrication of buses of the Bidder shall not be less than Rs 2 Crores for each of the preceding 3 financial years i.e. 2013-14, 2014-15 & 2015-16.
2. The Bidder must be well established and must have minimum 5 years' experience in bus body fabrication and have fabricated at least 100 buses to any STUs/Private operators in last three years.
3. The bidder's Plant/workshop should be accredited by ARAI, Pune or any other agency approved by Govt. of India.
4. The bidder has to submit Bus Body design Type approval of the bus body as per bus body code AIS-052(Revised up to date) certificate issued by ARAI or CIRT Pune at the time of final proto type Inspection.
5. The bidder must have Tools and Plants as mentioned in Annexure-13 of RFP document.
6. The bidder must have bus body manufacturing facilities and plant accreditation as per relevant AIS and IS standards.

Submission of Bids:

The tenders must be submitted online on or before 08.02.2017 time 14:00 hours. The technical bid will be opened on 08.02.2017 at 15:00 hours. The detailed pre-qualification criteria, detailed terms and conditions of the tender can be downloaded from the Chandigarh official website: <http://etenders.chd.nic.in>.

No tender shall be accepted in physical form. The Competent Authority reserves all rights to reject / accept the tender without assigning any reason. The bidders can approach the Nodal Officer, e-tendering, CTU-Chandigarh on any working day between 9:00 A.M to 5:00 P.M. in case any query / clarification regarding e-tendering process (Ph. No. 0172-2679003 Extn.216) or mail at ctu-chd@nic.in

-sd-
General Manager
For Divisional Manager CTU &
Director Transport,
Union Territory,
Chandigarh.

SECTION III ; DEFINITIONS & ABBREVIATIONS

In this RFP, the following words (s), unless repugnant to the context or meaning thereof, shall have the meaning (s) assigned to them herein below:

1. **“Aims and Objectives”** To motivate the public to prefer use of public transport as a means of travelling over personal transport by modernizing the fleet & operations and improve the quality and outlook of the buses so that they are comfortable, aesthetic, attractive as would be befitting a modern vibrant city.
2. **“Agreement”** means the document signed between the Divisional Manager, CTU, & Director Transport, Union Territory, Chandigarh and the successful bidder, the bidder that incorporates any final corrections or modification to the bid, and is the legal document binding on both the parties to the agreement, with all terms and conditions of the contract.
3. **”Bid”** means the proposals submitted by the Bidder(s) in response to this RFP in accordance with the provisions, thereof including the Technical Bid/proposal and Financial Bid/proposal along with all other documents forming part and in support thereof.
4. **“Bidder”** means a company incorporated in India engaged in fabrication of complete bus body and who has submitted the bid for the fabrication of bus body (including fabrication & warrantee) as per the terms, conditions, and technical specifications of the RFP document.
5. **“Bid Security”** shall have the meaning prescribed to it in Instructions to Bidders.
6. **“Bid Process”** means the process of selection of the successful bidder through Competitive bidding and includes submission of bids, scrutiny and evaluation of such bids as set forth in the RFP.
7. **“Consignee”** means the person to whom the buses are required to be delivered as per the “Letter of Acceptance” to be dispatched by rail, road or any other mode.
8. **“Contract”** means and includes **“ Letter of Acceptance”, ‘ Notice Inviting Tender ‘, Instructions to Bidders’, ‘General Conditions of Contract’, ‘Schedule of Requirements’, ‘Technical Specifications’, ‘Price Schedule’, ‘Annexures’** and includes a Repeat order accepted or acted upon by the Contractor and a formal agreement , if executed.
9. **“Contractor” means** the company with whom the contract for the supply is placed and shall be deemed to include the Contractor’s successors (approved by the Purchaser), representatives, heirs, executors and administrators, as the case may be, unless executed by the terms of the agreement/contract.

10. **“Deadline for Submission of Bids”** shall mean the last date and time for receipt of Bids as set-forth in the RFP or such other date/time as may be decided by Chandigarh Transport Undertaking Chandigarh in its sole discretion and requisite information notified to the bidders by dissemination in this behalf on the Web site <http://etenders.chd.nic.in> and/or in writing either by Email or by facsimile or by Registered Post.
11. **“Delivery of Buses”** shall be deemed to take place only if the buses are delivered in accordance with the terms of the contract/agreement after approval by the Inspecting Officer/Committee at purchaser premises.
12. **“Divisional Manager, CTU, & Director Transport”** means the Director Transport, Union Territory, Chandigarh and its authorized successors, representatives and assignees at all times.
13. **“Effective date”** of the agreement shall mean the date on which the ‘Letter of Acceptance (LOA) shall be dispatched by the Purchaser:
14. **“CTU”** means the Chandigarh Transport Undertaking Chandigarh as is relevant in the context.
15. **“Inspecting Officer”** means the person(s), firm(s) or organization nominated by the Purchaser for the purpose of inspection of buses or works under the agreement and includes its / their authorized representative.
16. **“Inspection means”** stage wise inspection of fully built buses which may be carried out at the Contractor’s manufacturing premises before dispatch to the Purchaser and **‘Provisional and final** inspection of buses can be carried out at Chandigarh or at any other places as desired by the Purchaser.
17. **“Letter of Acceptance”** means the letter or memorandum communicating to the successful bidder the acceptance of its bid and includes an advance acceptance of its bid.
18. **“Manufacturing Premises”** means the manufacturing works/premises of the Contractor at which the buses shall be manufactured.
19. **“Material” means** anything used in the manufacture or fabrication of the buses.
20. **“Purchaser”** means Chandigarh Transport Undertaking Chandigarh or its authorized representatives
21. **“Period “** shall mean the entire term of the agreement.
22. **“RFP” and / or “RFP Document”** means this RFP document comprises the sections namely Disclaimer, Notice Inviting Tender (NIT), Definitions and Abbreviations, Instructions to Bidders (ITB), General Conditions of Contract (GCC), Schedule of

Requirements (SOR), Technical Specifications, (TS), Price Schedule (PS), and Bid Forms, Annexures and other formats and any applicable schedules thereto added/modified before the freezing of the RFP.

23. **“Services** “ means services ancillary to the supply of the buses such as transportation and insurance etc:

24. **“Site** “ means the such place as may be specified at which any work is required to be executed by the Contractor under the agreement or any other place approved by the Purchaser for the purpose ;

25. The terms **“ Successful Bidder , “ Acceptable L1 Bidder “** , and / or **“Vendor”** shall mean the Bidder who qualifies the Technical bid/proposal stage and the Financial bid/Proposal stage of this **RFP** and to whom a Letter of Acceptance is consequently issued by **“Divisional Manager, CTU & Director Transport”, Union Territory, Chandigarh.**

26. **“ Works** “ means all the works specified or set forth and required in and by the said ‘ Technical Specifications’, ‘General Conditions of Contract ‘, ‘Drawings’ and ‘ Schedule of Requirements’, ‘ Bid Forms, Annexure and other Formats‘ Hereto annexed or to be implied there from or incidental thereto, or to be hereafter specified or required in such explanatory instructions and drawings (being in conformity with the said original Specification (s), Drawing (s) and ‘Schedule of Requirements) and also in such additional instructions and drawings not being in conformity as aforesaid, as shall from time to time, during the progress of the work hereby Contracted for, be supplied by the Purchaser.

27. Any other term (s), not defined herein above but defined elsewhere in this RFP shall have the meaning(s) prescribed to such terms(s)therein and shall be deemed to have been included in this section.

SECTION IV: INSTRUCTIONS TO BIDDERS (ITB)-

1. GENERAL

- 1.1 CTU (hereinafter referred to as the Purchaser), **invites Online tender** in Two Bid System for Fabrication of 40 nos. Ordinary bus body on Diesel BS-IV Passenger Chassis (Tata model LPO 1613) having 5545 mm wheel base for inter-city operations, by the bus manufacturer/body fabricator's conforming to Bharat Stage-IV standards, from established and reliable manufacturers having at least 5 years' experience in manufacturing of fully built buses by the years ending on 31.03.2016.
- 1.2 Complete bid in the prescribed format should be submitted online on or before the time and date fixed for submission of bid. The Bid in physical form will not be entertained.
- 1.3 The bidders are required to offer their prices as per Price bid and should be submitted/uploaded on the prescribed format. Conditional offers / rates on any account will not be accepted in any case.
- 1.4 Traders, Agents, Brokers and middlemen are not eligible for participation in the bid in any way.

2. ELIGIBILITY CRITERIA-

2.1 Technical Qualification (Documentary proof to be attached):-

- 2.1.1 The Bidder must be well established and must have minimum 5 years' experience of fabrication of buses.
- 2.2.1 The bidder must have fabricated and supplied at least 100 buses to any STU/Pvt. Operator in last 3 years.
- 2.3.1 The bidder must have bus body manufacturing facilities and plant accredited as per relevant AIS and IS Standards. The bidder's workshop should be accredited by ARAI, Pune or any other agency approved by Govt. of India.
- 2.4.1 The bidder has to submit Bus Body design Type approval of the bus body as per bus body code AIS-052(Revised up to date) certificate issued by ARAI or CIRT Pune, ICAT Gurugram at the time of proto type Inspection.
- 2.5.1 The bidder must attach with the technical bid, the detailed drawings including structural drawings prepared on the lines as per attached annexure along with seat layout showing dimensions such as Width of Gangway, Seat Pitch, Seat Width, Leg Space, Service Doors Length/Width etc conforming to technical specifications defined in this RFP complete in all respects.

2.6.1 The bidder must have Tools and Plants as mentioned in Annexure of RFP document.

Financial Qualification:-

2.7.1 The bidder shall have present net worth (on the last day of previous financial year) of not less than Rs 1 crore.

2.8.1 The average annual turnover of the Bidder shall not be less than Rs 2 Crores for each of the preceding 3 financial years i.e. 2013-14, 2014-15 & 2015-16.

NOTE:- Supporting documents w.r.t. all the above shall have to be provided with Technical bid documents.

- 2.2 The pre-qualification of bidders shall be adjudged in respect of above points which are mandatory. In case of not meeting these points, the bidder is liable to be disqualified. These must be supported by relevant document which are mandatory. The capacity and capability of body builders shall be adjudged by taking into account experience and past performance, type and quality of Equipments, Manufacturing/Fabricating facilities, financial position etc.
- 2.3 In addition to the above, the Bidder, if required by the Purchaser, shall promptly furnish further information regarding his capacity / capability, and he should extend all possible cooperation to the representatives of the Purchaser for assessing his capacity / capability during the actual visit to his works /office.
- 2.4 The technical experience and financial capabilities of any other Group Company, or holding company or subsidiary company of any Bidder shall not be considered for evaluation.
- 2.5 The information regarding infrastructure, plant and machinery, financial information submitted by the bidders will be evaluated by the Evaluation Committee with respect to the Terms and Conditions, Technical Specifications along with RFP. Inspection of the premises of the bidders can be carried out by the Committee constituted by Director Transport, Chandigarh Transport Undertaking to verify claims regarding documents submitted by the bidders.
- 2.6 The price bid of only those bidders will be opened/downloaded who will technically qualify for the Tender by the Evaluation Committee.

3. COST OF DOCUMENT

The RFP documents can be downloaded from the CTU-Chandigarh, official **website:** <http://etenders.chd.nic.in>. The tender documents can be downloaded free of cost, however, the tender fee of Rs-5000/-(Rs Five Thousand Only) (non-refundable) against the tender documents, has to be paid by the bidder in the form of Demand Draft, payable to "Director Transport, Union Territory Chandigarh" at Chandigarh with the technical bid.

4. COST OF BIDDING

The bidder shall bear all costs associated with the preparation and submission of bid and the Purchaser will, in no case, be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

5. PRE-BID CONFERENCE

5.1 A pre-bid conference will be held on the date 24/01/2017 at 11.30 hours, in the office of Divisional Manager, CTU & Director Transport, Union Territory, Chandigarh with the prospective bidders, for the purpose of holding technical & financial/ commercial discussions and providing clarifications by the Purchaser. The queries, if any, from the Bidders in respect of RFP document should reach the Purchaser before dated 23/01/2017 up to 16.00 hours from the date & time of the pre-bid conference. In the pre-bid conference, clarifications pertaining to technical, financial commercial and other issues regarding these buses including designs, parameters / standards and specifications that may be required by the prospective Bidders will be provided.

5.2 Any verbal suggestion / proposal of variations / deviations / additions in the RFP - document made during the pre -bid conference should also be given in writing to the Purchaser by dated 30/01/2017 up to 16.00 hours to keep the same in record and reference without which Purchaser will not be liable to entertain the same.

5.3 The Purchaser may clarify or even revise on variations/deviations, alternative proposals, which ensure equal or higher quality / performance to the Technical Specifications during pre-bid conference. The decision of the Purchaser in this regard shall be final.

5.4 After incorporating the amendments acceptable to the Purchaser, the RFP - Document shall be frozen by 30/01/2017 at 16.00 hours. The addendum to the RFP - Document may be downloaded from the website of the CTU.

5.5 Non-attendance at the pre-bid conference will not be a cause for disqualification of a bidder. However, the terms and conditions of the addendum(s) will be legally binding on all the bidders irrespective of their attendance at the pre-bid conference.

6. EXAMINATION OF RFP BY BIDDER

The bidder is required to examine carefully all the contents/pros & cons of the RFP document including instructions, conditions, forms, terms, specifications and take them fully into account before submitting the bid. Failure to comply with the requirement(s) of RFP document will be at the bidder's own risk & responsibility.

7. LANGUAGE OF BID:

The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid, exchanged by the Bidder and the Purchase shall be written in English.

8. COMPLIANCE WITH TECHNICAL SPECIFICATIONS:-

- 8.1 The bus body required against this bid shall conform to the Technical Specifications of the RFP Document. Bidder has to clarify in the each parameter of the specifications about its product, whether the offered model / product is meeting out the requisite specifications or not. If not meeting out the requisite specifications, the bidder has to indicate their specification of that parameter.
- 8.2 The Bidder shall be required to comply with all the latest provisions of the Central Motor Vehicle Rules 1989 (CMVR), the Chandigarh Motor Vehicle Rules, 1990 along with any and all amendments therein, Bus Body Code AIS-052 and all ARAI/AIS standards and Notifications issued by Ministry of Road and Transport and Highways and other statutory and legal requirements as applicable on the date of delivery.

9. VARIATIONS/ DEVIATIONS

- 9.1 The Bidder shall have to indicate the deviation, if any, from the 'Instructions to Bidders,' General Conditions of Contract' and 'Schedule of requirements' of the Bid Document in the prescribed Performa (**Annexure- 1**).
- 9.2 The Bidder shall also have to indicate the deviation, if any, from the "Technical Specifications of the RFP document (**Annexure- 2**).
- 9.3 The bids / offers not meeting out the prescribed specification, terms and conditions of RFP documents are liable for rejection. The decision of the Purchaser in this regard, shall be final and binding upon on the bidders.

10. DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATIONS

- 10.1 The bidders shall along with the bid provide satisfactory evidence acceptable to the Purchaser as given below in addition to that defined under Technical qualification criteria:
- a. Copy of Certificate of Incorporation.
 - b. The average annual turnover of the Bidder shall not be less than Rs 2 Crores for each of the preceding 3 financial years i.e. 2013-14, 2014-15 & 2015-16.
 - c. The Bidder must be well established and must have minimum 5 years' experience of fabrication of buses.
 - d. The bidder shall have present net worth (on the last day of previous financial year) of not less than Rs 1.0 crores.
 - e. All other documents as defined under Pre Qualification Criteria Section 2.0 above.
- 10.2 In addition to the above, the Bidder, if required by the Purchaser, shall promptly furnish further Information regarding his capacity/capability, and he would extend all cooperation to the representatives of the Purchaser for assessing his capacity /capability by actual visit to his works/office.

11. DOCUMENTS / ITEMS COMPRISING THE BID

- 11.1 The proposal shall be submitted by the Bidder online in two Bids viz. Technical Bid and Financial Bid.
- (i) Technical bid shall be uploaded in as per terms & conditions of RFP, Bid Security /EMD and all other documents as well as technical and commercial information required in accordance with the RFP document.
- (ii) Financial Bid shall consist of only Price Schedule and be uploaded only in the prescribed formats.
- 11.2 The Bidders may be required to provide a simulation model and Power Point Presentation of the type of bus body intended for fabrication to highlight the required / specified salient features of their product offered to the Purchaser as per Technical Specifications defined in this RFP and may be part of technical qualification criteria.

12. BID SECURITY / EARNEST MONEY DEPOSIT (EMD) –

- 12.1 The bidder shall furnish bid security (hereinafter also referred to as Earnest Money Deposit(EMD) of Rs 8.00 Lakh(Eight Lakh Only)with respect to bid for fabrication of buses as part of this bid. The bid security shall be sealed in a separate sealed envelope super scribed “**Earnest Money for fabrication of 40 nos bus body**” for the bid due on 08/02/2017 up to 15:00 hrs. The Earnest Money Deposit (EMD) with validity period of at least 90 days beyond the financial bids validity period should be in the form of “Bank Guarantee” payable in favour of Divisional Manager, CTU, & Director Transport, Union Territory, Chandigarh payable /en-cashable at Chandigarh of any Nationalized / Scheduled bank, operating in India. (Annexure 5).
- 12.2 Any Bid not accompanied with valid and required as per RFP Bid Security / EMD in the acceptable form will be liable to be rejected by the Purchaser considering it as non-responsive.
- 12.3 No interest will be payable by the Purchaser on the bid security.
- 12.4 The Bid Security is liable to be forfeited if the Bidder withdraws amends, impairs, or derogates from the bid in any respect within the period of validity of its bid. The decision of Purchaser in this respect shall be final and binding.

13. DISCHARGE OF BID SECURITY OF UNSUCCESSFUL BIDDERS(S)

- 13.1 The Bid Security of unsuccessful Bidders will be discharged / returned as promptly as possible after the expiry of Bid validity period and / or within 30 days from the date of signing the agreement with the successful bidder.

14. DISCHARGE OF BID SECURITY OF SUCCESSFUL BIDDER(S)

- 14.1 The bid security of the Successful Bidder(s) shall be discharged only after the Successful Bidder(s) furnishes the Contract Performance Security as required.
- 14.2 If the successful Bidder(s) fails to furnish the Contract Performance Security within the requisite period as specified in the 'General Conditions of Contract', then the bid Security shall be liable to be forfeited by the Purchaser, in addition to any other punitive actions as per terms and conditions stipulated in the RFP Document.

15. PRICE BASIS, DELIVERY SCHEDULE & PAYMENT TERMS

- 15.1 Financial bid/proposal should be as per the format. **(Annexure-4)**.
- 15.2 The price for the fabrication of bus shall include a complete break-up showing the basic price, excise duty, other levies, sales tax, freight and insurance charges. Other charges, if any, shall also be given. Bids not containing the break-up of prices are liable to be rejected. Government levies / duties / taxes on the complete bus body as applicable on the date of opening of price bids will be considered for evaluation. In case there is variation in the statutory levies / taxes during the period of the contract, the same will be payable at actual to the bidder subject to the condition that the delivery is arranged within the agreed delivery schedule.
- 15.3 The Bidders should quote their lowest possible prices. The price quoted shall be firm and not subject to any upward variation except for the variation in statutory levies & duties.
- 15.4 The Bidders must conform to the delivery period as specified in General Conditions of Contract and Schedule of Requirements.

16. INSURANCE

On acceptance of buses by the Purchaser, third party insurance will be arranged by the Purchaser at its own cost. However, the Contractor will be required to arrange insurance of buses till the same are delivered to and accepted by the Purchaser.

17. BID VALIDITY

- 17.1 The bid shall remain valid and open for acceptance for a period of 90 days from the date of opening of financial bid.
- 17.2 In exceptional circumstances prior to expiry of the original bid validity period, the Purchaser may request the Bidder for extension in the period of validity. A Bidder may refuse the request without becoming liable for forfeiture of EMD. However this bid may be rejected by the Purchaser on such refusal. Moreover, the bidder agreeing to the request will not be permitted to modify his Bid.

18. FORMAT AND SIGNING OF BID

- 18.1 Each page of the bid/bids must be numbered at the right hand top corner and an

authorized person should sign and put company's seal on each page of the bid documents.

18.2 The bid/bids shall contain no interlineations, or overwriting except as necessary to correct errors made by the Bidder, in which case, such corrections shall be initialled by the person or persons signing the bid.

18.3 All prices and other information like discount etc. having a bearing on the Price shall be written both in figures and words in the prescribed Bid Form. In case of discrepancy, the price given in words shall be considered.

19. TWO BID SYSTEM

19.1 Bidders shall have to submit bid online only.

- (i) Technical bid shall consist of the Performa of submission of Bid with EMD, performance statement, technical details and all other documents as well as the technical and commercial information required in accordance with the RFP document. The documents to be provided in Technical bid are listed out at **Section-VII**, for reference.
- (ii) Financial Bid shall contain only the price schedule of the fabrication of the bus complete in all respects as per technical specifications and terms and conditions as mentioned in this of the RFP document.

20. MODIFICATION AND WITHDRAWAL OF BIDS

The Bidder has the discretion to modify or withdraw his bid after submission but before the last date and time fixed for submission of the bids.

21. BID OPENING

The Technical Bids of all the Bidders will be opened/downloaded by the Purchaser at time, date and place indicated in the Bid Documents. In the event of the specified date of bid opening being declared holiday for the Purchaser, the bids shall be opened at the same time and location on the next working day.

22. CLARIFICATION OF BIDS

22.1 To assist in the examination, evaluation and comparison of Bids, the Purchaser may, if necessary, ask the Bidders individually for clarification of their bids, including break-up of prices.

22.2 The Purchaser reserves the right to inspect / visit the premises of manufacturing facilities of the Bidder to ascertain the Bidder's eligibility & his fulfilling the qualification criteria etc. as and when required during evaluation of the bids. The Purchaser also reserves the right to visit the State Transport Authorities / Institutions where the bidder has supplied the similar type of buses to take feedback of the buses supplied. The feedback so obtained on visiting the

manufacturer's facilities and operating Institutions will also play vital role in accepting / rejecting the technical bid of individual bidder. The decision of the Purchaser in this respect shall be final and binding on the bidder.

23. DETERMINATION OF RESPONSIVENESS:-

- 23.1 The Purchaser will determine whether each bid is responsive to the requirements of the bid documents.
- 23.2 A responsive bid is one which conforms to all the terms & conditions and specifications of the Bid Documents without any material deviation or reservation. The bidder shall have to clearly specify the deviation, if any in the formats given at Annexures- 1 & 2. "Deviation" may include exceptions exclusions, qualifications, conditions, stated assumptions and alternative proposals not solicited. A material deviation or reservation is one which effects in any way the scope, quality, performance or administration of the contract by the Bidder, or which limits in any way, inconsistent with the Bid Documents the purchase rights or the Bidder's obligations under the contract, and the rectification of which would affect unfairly the competitive position of other Bidders presenting responsive Bids at reasonable prices.
- 23.3 If a Bid is not responsive to the requirements of the Bid Documents, it will be liable to be rejected by the Purchaser. The decision of the Purchaser in this respect will be final and binding on the bidder.

24. EVALUATION AND COMPARISON OF BIDS

- 24.1 The Purchaser will evaluate and compare only those Bids determined to be responsive to the requirements of the Bid Document and those who will technically be qualified by the committee/purchaser.
- 24.2 The Bidders are required to provide all technical details, as these are required for evaluation purpose as per this RFP documents. Bids received without full & complete specification and drawings are liable to be rejected. The Purchaser shall go through and evaluate the Technical bids and advise accordingly only those Bidders whose bids shall be found responsive to the requirements of the Bid Document, Financial Bids of only such Bidders will be opened at the time & date to be notified later to individual successful Bidders (successful in technical bid). The price/financial bids of other Bidders, who do not qualify as a result of Technical evaluation, shall not be opened.
- 24.3 The Purchaser shall evaluate and compare the price/financial bids of only those Bidders who have offered the prices complete in all respect as per the RFP document. The evaluation will be made at all inclusive total price of a bid. The total price means the each bus body price including all taxes and VAT.

25. AWARD OF CONTRACT: AWARD CRITERIA

Subject to the above, the Purchaser will consider the Bidder whose Bid has been determined to be responsive, complete and in accordance with the RFP document and whose offer on evaluation has been determined to be the lowest acceptable offer.

26. PURCHASER RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Purchaser reserves the right to accept or reject any Bid, and to annul the Bid Process and reject all Bids without assigning any reason.

27. NOTIFICATION OF AWARD

Prior to the expiry of the period of Bid validity, the Purchaser will notify the successful Bidder through Mail /E-mail to confirm in writing by Registered/Speed Post as well Online that his Bid has been accepted. This letter (hereinafter and in the General Conditions of Contract called 'Letter of Acceptance') shall have in detail the sum which the Purchaser will pay to the Contractor. (Format of the Letter of Acceptance- **ANNEXURE -11**)

28. SIGNING AND ACCEPTANCE OF 'LETTER OF ACCEPTANCE'

28.1 Upon receipt of the 'Letter of Acceptance', the successful Bidder shall return two copies of the Letter of Acceptance duly signed and stamped by his authorized signatory within 15 days from the date of receipt of Letter of Acceptance. However, the Contract shall be deemed to be concluded on the date of dispatch of the 'Letter of Acceptance' by the Purchaser.

28.2 Upon return of '**Letter of Acceptance**' from the successful Bidder, Contract in accordance with the form of agreement prescribed with the RFP Document, shall have to be signed by both the parties (**Annexure 6**) within next 15 days. The successful Bidder shall get the correct amount of Stamp Duty adjudicated in accordance with the applicable law, and submit the same in two copies duly stamped and executed within thirty days from the dispatch of ' letter of Acceptance'. The Purchaser will return one copy duly sealed and signed as a token of acceptance of contract agreement. Stamp Duty will be paid by the successful Bidder.

28.3 At the time of signing the Contract, the successful Bidder shall be required to give an undertaking in the form of Affidavit on Non-judicial Stamp Paper of appropriate value Notarized conformity with the requirement (**Annexure-7**).

29. PERFORMANCE SECURITY

Within 30 days of dispatch of the '**Letter of Acceptance**' from the Purchaser, the successful Bidder shall furnish to the Purchaser a Performance Security for an amount equivalent to 5% of the total Contract value which will be valid 60 days

beyond the Warranty period or 2 years from the date of Final Acceptance.

30. CORRUPT PRACTICES

Bidders are expected not to indulge in any corrupt and fraudulent practice. They are expected to observe the highest standard to ethics during the procurement and execution of the Contract.

31. Warranty

There will be standard warranty for two years for the body fabricated by the successful bidder. During the warrantee period if any defect is discovered on account of poor workmanship as well as material, such defects shall be attended by the successful bidder within stipulated period (i.e. 3 days from the date of notice) falling which actual expenditure incurred for repair of such bus body will be recovered from the performance security of the successful bidder and Purchaser will be at liberty to forfeit security deposit/performance security. Repetition of continuous 3 such incidents/defects may lead for blacklisting of the successful bidder, apart from other punitive action.

SECTION V: GENERAL CONDITIONS OF CONTRACT (GCC)

1. INTERPRETATIONS

In the contract, unless the context otherwise requires:

- 1.1 Words in the singular include the plural and vice-versa.
- 1.2 Words importing the masculine gender shall be taken to include the feminine gender and words importing persons shall include any company, or association, or body of individuals, whether incorporated or not.
- 1.3 The heading of these conditions shall not affect the interpretation or construction thereof of the Clause.
- 1.4 Terms and expression not herein defined shall have the meanings assigned to them in the Indian sale of Goods Act,1930 (as amended)or the Indian Contract Act, 1872 (as amended) or the General Clauses Act,1897 (as amended) as the case may be.
- 1.5 Whenever Date & Period are specified in the RFP Document for completing some formalities/ tasks/ documentations etc. the commencement of the period prescribed for the said completion shall be reckoned from the date of dispatch of the communication by the Purchaser, even if mentioned otherwise anywhere else.

2. PARTIES TO THE CONTRACT AND THEIR OBLIGATIONS

- 2.1 The parties to the contract are the Contractor and the Purchaser, as defined in RFP Document.
- 2.2 A person signing the bid or any other document in respect of the contract on behalf of the Contractor/Bidder without disclosing his authority to do so, shall be deemed to have the authority to bind the Contractor/Bidder to fulfill his obligations as mentioned in such bid or document. If it is discovered at any time that the person so signing has no authority to do so, the Purchaser may, without prejudice to any other right or remedy of the Purchaser, cancel the contract and make or authorize the making of a purchase of buses at the risk and cost of such Bidder and hold such bidder liable to the Purchaser for all costs and damages arising from the cancellation of the contract including any loss which the Purchaser may sustain on account of such purchase.
- 2.3 Any approval that may be given by the Purchaser or Inspecting Officer or Committee on behalf of Purchaser shall only be deemed to be the approval in principle. Notwithstanding such approval, the Contractor/Bidder shall be fully and totally responsible for the satisfactory performance and compliance with contract specifications.
- 2.4 In case of any inter-se conflict between any provisions / stipulations in the Bid document or in the Contract Document, the decision of the Purchaser for

interpretation /application would be final and binding.

- 2.5 The Contractor/Bidder shall be absolutely liable for the technical design and fabrication of the bus body as per the design and approved drawings by the Purchaser. The drawings attached in this RFP are not final. The final drawings have to be got approved from the Director Transport, U.T. Chandigarh cum Divisional Manager, Chandigarh Transport Undertaking before fabricating the prototype of the bus. It shall not be open to the Contractor/Bidder to contend at a later stage that a particular change / deviation in the technical parameters / drawings is not compatible with the overall design of the bus or affects performance. Any losses, whatsoever, which are occasioned on account of the design / technical failure of the bus, shall be borne by the Contractor/Bidder.
- 2.6 The Contractor/successful Bidder shall be absolutely liable the damage caused to the assemblies, electrical components, chassis and other components fitted by Chassis manufacturer (i.e. M/s Tata Motors) during the fabrication of the bus body, the entire liability to rectify, replace, shall be of the Contractor/Successful bidder. The Contractor shall ensure that bus is free from any such defect, damages before delivery.

3. CONTRACT

- 3.1 The contract shall be for Fabrication of bus body of the description, specifications and drawings and in the quantities set forth in the contract.
- 3.2 The whole contract is to be executed in the approved, substantial and workman like manner, to the entire satisfaction of the Purchaser. Purchaser shall have full power, at every stage of progress, to inspect the fabrication of buses at any times as he may deem fit and to advise for rectifications, if any and even to reject any of the Bus / item, which he may disapprove, and his decision thereon, and on any question of the true intent and meaning of the specifications shall be final and conclusive. **(Annexure 6)**

4. PERFORMANCE SECURITY

- 4.1 The Contractor/Bidder shall furnish Performance security en-cashable at Chandigarh in the shape of a irrevocable Bank Guarantee in the Performa prescribed in the RFP document within 30 days from the date of dispatch of the '**Letter of Acceptance**' of the bid by the Purchaser, for an amount equivalent to 5% of the value of the contract in Indian Rupees.
- 4.2 In case of delay in submission of performance security the Purchaser shall, without prejudice to other remedies under the contract, levy/deduct penalty @ 0.5% of the total value of the contract (inclusive of duties & taxes) for delay of each week or part thereof.
- 4.3 The Purchaser shall be entitled and it shall be lawful on his part to forfeit the

amount of the Performance security in whole or in part in the event of any default, failure or neglect on the part of the Contractor/Bidder in the fulfillment or performance in any manner whatsoever of the contract under reference or any other contract with the Purchaser or any part thereof to the satisfaction of the Purchaser.

- 4.4 The Bank Guarantee shall remain in full force and effect during the period of warranty of 2 years from the date of Final Acceptance of buses for satisfactory performance and fulfilment complete in all respects of the contract.

5. LIQUIDATED DAMAGES

- 5.1 Liquidated damages—if the Contractor fails to deliver any or all of the buses or fails to complete the delivery of same within the delivery period (s) specified in the contract, the Purchaser shall, without prejudice to other remedies under the contract, levy/ deduct per estimated liquidated damages as follows:

- 5.2 @ 0.5% (Zero point five per cent) of the total value of the bus bodies (inclusive of duties & taxes) which the Contractor has failed to deliver within the period fixed for delivery /commissioning for delay of each week or part thereof up to 4 (four) weeks of delay, and

- 5.3 @ 0.75%(zero point seventy five per cent) of the total value of the bus bodies (inclusive of duties & taxes) which the Contractor has failed to deliver within the period fixed for delivery /commissioning for delay of each week or part thereof on entire delay period if delay is between 4 (four) weeks and 8 (eight) weeks and

- 5.4 @ 1.00% (One percent) of the total value of the bus bodies (inclusive of duties & taxes) which the Contractor has failed to deliver within the period fixed for delivery for delay of each week or part thereof on entire delay period if delay is beyond 8 (eight) week. The decision of Purchaser shall be final in this regard.

Example: In case delay period is 32 days, then pre-estimated Liquidated damages shall be worked @ 0.75% for 5 weeks.

- 5.5 The amount of pre estimated Liquidated damages to be charged under the contract, in terms or preceding sub clauses shall not exceed 5% of the total value of contract (inclusive of duties & taxes).

6. TERMINATION FOR DEFAULT

- 6.1 The Purchaser may, without prejudice to any other remedy for any breach of any terms /condition of the contract, by written notice of default of **30 days** sent to the Contractor/Bidder, terminate the contract in whole or in part:

- a. If the Contractor/Bidder fails to deliver any or all of the buses or fails to commission the same within the delivery schedule (s) specified in the contract, or any extension thereof granted by the Purchaser.
- b. If the Contractor/Bidder fails to perform any other obligation (s) under the

contract.

- c. The firm / Bidder will liable to be blacklisted as per Chandigarh Administration, Finance Department Notification No. 1927-F&PO (3)-2009 Dated 27.02.2009 in the following types of situations:-
- i) Dishonest/fraudulent/sharp practices are indulged in by the party/ Bidder.
 - ii) Advancing a claim on the basis of forged documents.
 - iii) Sale or supply of spurious items and compromising public safety.
 - iv) Material concealment/suppression of facts or gross misrepresentation of facts.
 - v) Any other case or situation involving national security.

7. FORCE MAJEURE

- 7.1 For purposes of this contract, Force Majeure means an event beyond the control of the parties to the contract and not involving either party's fault or negligence and not foreseeable.
- 7.2 If, at any time during the existence of the contract, either party is unable to perform in whole or in part any obligation under this contract because of an event rendering performance of obligations impossible which include acts of God, war, revolutions, hostility, civil commotions, strikes, floods, earthquake, epidemics, quarantine restrictions, freight embargoes or explosions, then the date of fulfillment of contract shall be postponed during the period when such circumstances are operative.
- 7.3 The party which is unable to perform its obligations under the present contract shall, within seven (07) days of occurrence of the Force Majeure event, inform the other party with suitable documentary evidence. Non-availability of any component etc. or any price escalation or change in any duty, tax, levy, charge etc. shall not be an excuse for the Contractor/Bidder for not performing his obligations under this clause/contract.
- 7.4 Any waiver/extension of time in respect of the delivery of any installment or commissioning of buses shall not be deemed to be a waiver/extension of time in respect of the remaining deliveries or commissioning of buses or completing balance portion of work for setting indigenous production facilities for the buses.
- 7.5 If such inability on account of force majeure to perform continues for a period of more than three months, each party shall have the right to be released from further performance of the contract, in which case, neither party shall have the right to claim damages from the other. All prior performance shall be subject to contract terms.
- 7.6 The Contractor/Bidder shall not be liable for forfeiture of his performance security, pre-estimated liquidated damages or termination if and to the extent that delay in performance or other failure to perform its obligations under the contract is the

result of Force Majeure.

8. DELIVERY

- 8.1 The Bidder has to build and offer prototype of bus body within 45 days of receipt of chassis. The delivery of 40 bus body including prototype bus is to be completed within the contracted delivery schedule of 90 days (Three months) from the date of issue of confirmed Purchase Order. If the Contractor/Bidder fails to complete the supplies within contracted delivery period of 90 days and prototype bus body within 45 days, the Purchaser shall take actions as per Clause 5 of General Conditions of Contract.
- 8.2 The bidder on completion and approval of the bus body shall be obliged to transport the vehicle to and from the Depot of Chandigarh Transport Undertaking along with driver. The bidder shall arrange the temporary registration certificate for the vehicle during the transportation from the bidder manufacturing premises to the depot of this undertaking before dispatch of the vehicles. The bidder shall get TRCs renewed from time to time at his own cost for period exceeding beyond stipulated delivery period. The Contractor/Bidder shall, as may be required by the Purchaser, deliver at the place/places detailed in the contract, or purchase order the quantities of the buses detailed therein. The buses shall be delivered not later than the dates specified in the contract/purchase order otherwise penalties would be imposed as per penalty clause number 5 of RFP. The transit insurance to and fro from the Chandigarh Transport Undertaking will also to be arranged by the bidder.
- 8.3 Notwithstanding any inspection and approval by the Inspecting Officer, ownership of the buses shall not pass on to the Purchaser until the buses have been received at the destination i.e. at CTU- Workshop/Depot in Chandigarh. If the successful bidder's driver is found carrying passengers in the bus during transit to the destination depot, a penalty equivalent to the full capacity of the ten times the fare shall be charged. In case of accident, the bidder shall be fully responsible and liable for the payment of all type of compensation or damages or whatsoever and also liable for the damage of the bus and chassis and get it repaired. Transit Insurance to and from CTU is to be arranged by the successful bidder at no extra cost.
- 8.4 The Purchaser shall not be liable to render assistance to the Contractor/bidder in securing or in arranging or providing transport for the buses to be fabricated.
- 8.5 The contract shall be severable contract; Successful bidder shall make month wise supplies of the buses as per the delivery schedule indicated in the contract. Each and every monthly instalment of the buses shall be treated as separate contract. Failure to comply with month wise delivery schedule shall attract pre-estimated liquidated damages, risk purchase & other provision of the contract

- 8.6 The Contractor/Bidder shall give call for pre-dispatch inspection of the buses for each monthly installment before ten days from the estimated date of dispatch, failing which Purchaser shall not be liable for delay in inspection and supplies of buses.
- 8.7 The time allowed for and the date specified in the contract or as extended, for the delivery of the buses shall be the essence of the contract and delivery must be completed no later than the date (s) so specified or extended.
- 8.8 The Contractor/Bidder shall allow reasonable facilities and the free access to his works and records to the Inspecting Officer or such other Officer as may be nominated by the Purchaser for the purpose of ascertaining the progress of the deliveries under the contract.
- 8.9 A failure or delay by the Contractor/Bidder in the performance of his obligations for delivery and commissioning of buses, the Purchaser at his discretion may take any one or all of the following actions :
- a) Terminate the Contract for unsupplied quantity, and/or
 - b) Forfeit the Performance Guarantee: and/or
 - c) Effect purchases at the Bidder's risk and cost for the unsupplied quantity as per clause 9.2 herein after, and/or
 - d) Extend the delivery period for the unsupplied/non- commissioned quantity with imposition of pre estimated liquidated damages.
- 8.11 If successful bidder is found not to have enough capacity to supply, then upto 40% of supply order can be placed with 2nd lowest bidder at 1st lowest finalized rates.
- 8.12 If at any time during performance of the Contract, the Contractor/Bidder should encounter conditions beyond his control impeding timely delivery of the buses, the Contractor/Bidder shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Contractor's notice, the Purchaser may evaluate the situation and may, at his discretion, extend the Contractor's time for performance, in which case, the extension shall be ratified by the parties by amendment of the Contract. The extension so granted if any, shall not levy any penalty as specified in the aforesaid clauses. .

9. OPTION CLAUSE

- 9.1 The Purchaser reserves the right to increase/decrease the number of Bus bodies ordered by him by 25% (Twenty five percent) of the initially contracted numbers of Buses, (i.e. the number of buses ordered in the LOA) at any time till the completion of delivery of the entire ordered number of Buses without any change in the Unit Price or other Terms & Conditions. The decrease / increase in ordered quantity, if any, will be intimated within one month to the contractor /bidder from

the date of clearance of proto type bus body by the purchaser.

- 9.2 The increase of quantity shall be incorporated through an amendment. For the additional quantity, additional delivery period proportionate to the delivery period of the ordered quantity will be allowed. The Contractor/Bidder will have to deposit performance security of additional amount separately within 30 days from the date of amendment of increased quantity in the same manner & method prescribed.

10. LAWS GOVERNING THE CONTRACT

Irrespective of the place of delivery and the place of payment under the contract, the contract shall be deemed to have been made in Chandigarh from where the 'Letter of Acceptance' of the bid has been issued and where the contract is to be performed by supplying, commissioning and maintaining the buses.

11. SETTLEMENT OF DISPUTE AND ARBITRATION-

11.1 Amicable Resolution

(a) Save where expressly stated otherwise in this Contract, any dispute, difference or controversy of whatever nature howsoever arising under, out of or in relation to this Contract between the Parties and so notified in writing by either Party to the other (the "Dispute") in the first instance shall be attempted to be resolved amicably by the Parties and failing such the same shall be resolved in accordance with the procedure set forth in **sub-clause (b)** below.

(b) Either Party may require the Dispute to be referred to Transport Secretary, Union Territory, Chandigarh for amicable settlement. Upon such reference, both the Parties and the Transport Secretary or his nominee (who can be an employee of Chandigarh UT dealing with the Contract or otherwise) shall meet at the earliest mutual convenient and in any event within 15 (fifteen) days of such reference to discuss and attempt to amicably resolve the Dispute. If the Dispute is not amicably resolved within 15 (fifteen) days of such meeting, either Party may refer the Dispute to arbitration in accordance with the provisions given below.

11.2 Arbitration-

(a) Any Dispute which is not resolved amicably, as provided, shall be finally settled by binding arbitration under the Arbitration and Conciliation Act, 1996. The arbitration shall be by a committee of 3 (three) arbitrators chosen from a panel of arbitrators on the list of arbitrators available with or furnished by Union Territory, Chandigarh, 1 (One) arbitrator is to be chosen by each Party and the third, who shall be the Chairman will be the Transport Secretary, Chandigarh Administration, Chandigarh. If either Party fails to choose its arbitrator, the other Party shall take steps in accordance with Arbitration and Conciliation Act, 1996.

(b) Place of Arbitration

The place of arbitration shall be Chandigarh.

(c) **Language**

The request for arbitration, the answer to the request, the terms of reference, any written submissions, any orders and rulings shall be in English and, if oral hearings take place, English shall be the language to be used in the hearings.

(d) **Procedure**

The procedure to be followed in the arbitration by the Arbitral Tribunal shall be in accordance with the Arbitration & Conciliation Act, 1996 and as may be decided by the Arbitral Tribunal.

(e) **Enforcement of Award**

Any decision or award resulting from arbitration shall be final and binding upon the Parties. The parties hereto hereby waive, to the extent permitted by Law, any rights to appeal or to review of such award by any Court or Tribunal. The Parties here to agree that the arbitral award may be enforced against the Parties to the arbitration proceedings or their assets wherever they may be found and that a judgment upon the arbitral award may be entered in any Court having jurisdiction thereof.

(f) **Fees and Expenses**

The fees and expenses of the arbitrators and all other expenses of the arbitration shall be initially borne and paid by respective parties equally subject to determination by the arbitrators. The arbitrators may provide in the arbitral award for the reimbursement to the prevailing party of its costs and expenses in bringing or defending the arbitration claim, including legal fees and expenses incurred by the said party.

(g) **Performance during Arbitration**

Pending the submission of and / or decision on a dispute difference or claim or until the arbitral award is published the parties shall continue to perform all of their obligations under this Contract without prejudice to a final adjustment in accordance with such award.

12. SECRECY

12.1 Any information obtained in the course of the execution of the contract by the Contractor/Bidder, his servants or agents or any person so employed, as to any matter whatsoever, which would or might be directly or indirectly, of use to any enemy of India, must be treated secret and shall not at any time be communicated to any person.

12.2 Any breach of the aforesaid conditions shall entitle the Purchaser to cancel the contract and to purchase or authorize the purchase of the buses at the risk and cost of the Contractor/Bidder, as applicable.

13. PROTOTYPE BUS:-

The successful bidder has to build one prototype bus within 45 days of receipt of chassis at the plant. The Inspection Committee constituted by Director Transport, U.T.

Chandigarh cum Divisional Manager Chandigarh Transport Undertaking will inspect the prototype bus at various stages as per Inspection Clause and after approval of prototype bus next lot of chassis shall be dispatched. If the successful bidder fails to produce/submit the certificate of bus body design type approval complete in all respects as per bus body Code AIS-052 issued by ARAI, Pune or any Govt of India approved agency within 45 days, the successful bidder has to return back the chassis within 7 days otherwise CTU would be free to initiate legal proceedings in this regard.

14. PRE-DELEIVERY CONDITIONS

Chandigarh Transport Undertaking shall hand over the chassis to the successful bidder after execution of the Agreement and completion of the following formalities:-

- a). The bidder agrees to receive the chassis at Chandigarh from any Depot for fabricating the bus bodies and arrange to transport the chassis with the driver to the manufacturing premises at his own cost. The bidder shall ensure exhaustive transit to and fro transit insurance.
- b). The successful bidder will get the insurance cover at his own cost for the entire period for which the chassis would be retained in his fabrication premises against theft, flood, fire, riots, accidents and or otherwise for the full cost. In case the chassis remains with the contractor at his factory after the expiry of the insurance period the contractor will be liable to get the insurance cover obtained prior to expiry of the said policy. The successful bidder shall be liable for any damage to chassis/bus body if any and at the same time, bidder would be bear the cost for the same and is recoverable from the payment of bidder for any such damages.
- c). It shall be responsibility of the bidder to lift the chassis from the depot of Chandigarh Transport Undertaking as per schedule given by this undertaking. If the successful bidder fails to lift the chassis as per given schedule, penalty shall be imposed as given below:-

From 1st to 7 days:- Rs 1000/ per day per chassis

From 8th to 15 days:- Rs 2000/ per day per chassis

From 16th to 30 days:- Rs 3500/ per day per chassis

After 30 days:- Cancellation of Order and forfeiting of Performance Security.

15. INSPECTION OF BUSES

15.1 Purchaser or representative authorized by the Purchaser shall carry out inspection of Prototype and other buses at any of the following stages before pre-dispatch stage at Fabricator's manufacturing premises.

- **Structural assembly stage before panelling in all buses:-** i.e. Complete structure verification as per approved drawings (by Director Transport, U.T. Chandigarh cum Divisional Manager, Chandigarh Transport Undertaking)

and specifications mentioned in this RFP and bus Body code, quality of workmanship mainly welding, alignment of structure etc.

- **During Panelling and painting stage of buses:-** i.e. Material used for exterior as well as interior panelling, Roof panelling etc. as per technical specifications defined.
 - **Final completion after panelling** and equipping of buses (Fully built buses):- Shower Test of the bus, Workmanship of Interior, Seat Fixing, Rub rail fixing, Aluminium extruded sections at the floors, joints etc. complete in all respects.
- 15.2 The Successful bidder shall make a written request to the Director Transport cum Divisional Manager, Chandigarh Transport Undertaking well in advance of 7 working days before the inspection date of aforesaid stages.
- 15.3 After the approval of first stage inspection, the successful bidder will proceed further for the next stage of working. The inspection committee reserves the right to point out any defect in the material used, workmanship, quality of stores, etc. at any stage and bidder shall abide all such notes/changes which shall not be challengeable on the grounds that said defects were not pointed out during previous inspections.
- 15.4 The shower test as per IS code will be done by the Inspection Team for all the buses. The bidder must ensure that there should not any seepage, drippage, leakage as specified in the IS code in any part of the bus.
- 15.5 If any defects are observed during the course of any stage inspection and the same are not rectified by the bidder on the same day, re-inspection call given, then extra expenditure incurred on the visit of Inspection Committee to and fro journey i.e. T.A. and D.A. will be reimbursed by the bidder.
- 15.6 The purchaser shall not conduct any laboratory test if the material procurement certificates are submitted by the supplier at the time of inspection of buses. Regarding genuineness of the material used in fabrication of buses the bidder will produce the material purchase bills as per list of makes as mentioned in the annexure. Notwithstanding with above, if found necessary, the purchaser shall conduct material test at any stage for prototype or any other buses, at its own cost. If the material fails the test, entire cost of testing shall has to be borne by the supplier as well material used shall be replaced by the bidder at his own cost.
- 15.7 The inspection committee shall be at liberty to have access to the premises of the bidder and shall have authority to inspect and examine the material used and workmanship of the bodies as and when required.
- 15.8 Inspection of Buses at Destination Station: - On receipt of Buses at the place of delivery, these shall be jointly inspected by the Supplier and the consignee for completeness and satisfactory condition of all equipment/ components. Damages, defects and deficiencies, if any, shall be noted and the Supplier shall initiate immediate action for making good the same under advice from Purchaser within mutually agreed time period. Any delay commissioning of these buses due to any

such reason shall be to Supplier's account and shall be dealt with by the Purchaser as per Conditions of the Contract.

16. PAYMENT TERMS

16.1 Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges, deductions or adjustments as per terms & conditions of contract in the following manner

a) Payment for 85% of the total price of each consignment of the buses dispatched will be made within 2 weeks to the contractor on receipt of the buses by the consignee, along with relevant documents and receipt of bill along with the documents including provisional Acceptance Certificate' (**Annexure 9**)

b) Balance payment 15% payment would be made within 2 weeks against 'Final Acceptance Certificate' (**Annexure 10**) of the buses to be issued by the consignee, subject to recoveries, if any.

17. SPARE PARTS CATALOGUES (With respect to bus body)

Detailed Service Manuals, Spare Parts Catalogues, Price List for the aggregates etc., shall have to be provided along with the buses free of cost.

18. DUTIES & TAXES

The Bidders are required to indicate the breakup of duties and taxes payable by them in their Financial Bid.

19. FALL CLAUSE

In case, during the currency of the Contract/Bidder, the Contractor offers to Fabricate the buses conforming to the same specification as in the present contract to any State or Central Govt. Department, State Transport Undertaking. Central or State Undertaking at rates lower than the rates accepted against the present contract, such lower rates shall also be made applicable to all the buses supplied to the Purchaser in the present contract and payment shall be deducted /adjusted accordingly.

20. Conflict of Interest

A Bidder shall not have a conflict of interest (the "**Conflict of Interest**") that affects the Bidding Process. Any Bidder found to have such a Conflict of Interest shall be disqualified. In the event of disqualification, the Authority shall forfeit the appropriate EMD or Performance Security, as the case may be, payable to the Authority for, inter alia, the time, cost and effort of the Authority, including consideration of such Bidder's proposal, without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise. Without limiting the generality of the above, a Bidder shall be considered to have a Conflict

of Interest that affects the Bidding Process, if:

- (i) Such Bidder (or any constituent thereof) and any other Bidder (or any constituent thereof) have common controlling shareholders or other ownership interest, provided that this disqualification shall not apply in cases where the direct or indirect shareholding in a Bidder or a constituent thereof in the other Bidder (s) (or any of its constituents) is not more than 5% (Five per cent) of its paid up and subscribed capital; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in **section 4A** of the Companies Act 2013. For the purposes of this Clause 2.9(i), indirect shareholding held through one or more intermediate persons the computation of indirect shareholding of such person in the subject person shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or
- (ii) A constituent of such Bidder is also a constituent of another Bidder; or
- (iii) Such Bidder or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder or any Associate thereof; or
- (iv) Such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
- (v) Such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party /parties, that puts either or both of them in a position to have access to each others' information about, or to influence the Bid of either or each other; or
- (vi) Such Bidder has participated as a consultant to the Authority in the preparation of any documents, design or technical specifications of the Project.

Notwithstanding anything stated herein a conflict of interest situation arising at the pre-qualification stage will be considered to subsist only, as between such applicants attracting conflict of interest provisions on account of shareholdings, who submit bids under this document.

22. Indemnity

The prices stated are to include all rights (if any) of patent, registered design or trade mark and the Contractor shall at all times indemnify Authority against all claims which may be made in respect of buses for infringement of any right protected by patent, registration of designs or trade mark; provided always that in the event of any claim in respect of alleged breach of a patent , registered design or trade mark being made against the Authority, Authority shall notify the Contractor of the same and Contractor, shall at his own expense and responsibility, either settle any such dispute or conduct any litigation that may arise there from.

SECTION VI: SCHEDULE OF REQUIREMENTS (SOR)

Item No.	Description of Work	Tendered Quantity	Warranty Period	Period of Supply of Buses	Consignee	Earnest Money Deposit
1.	FABRICATION OF 40 NOS. ORDINARY BUS BODY ON DIESEL BS-IV PASSENGER CHASSIS (TATA MODEL LPO 1613) HAVING 5545 MM WHEEL BASE FOR INTER-CITY OPERATIONS	40 Nos.	Standard Warranty of Two years	90 Days	Divisional Manager, Chandigarh Transport Undertaking & Director Transport, U.T. Chandigarh	8.00 (Eight Lakhs Only)

NOTES:-

1. Bid shall be submitted online in two bids system and Bid shall be complete in all respects as specified in this RFP.
2. Attention of the bidders is invited to the Instructions to Bidders regarding deposit of earnest money/bid security. Any bid not accompanied with earnest money in one of the approved modes shall be summarily rejected.
3. Bidders shall quote the price as per RFP document and also give the detailed breakup of the quoted price.
4. The bidders shall quote on the basis of "Instructions To Bidders", "General Conditions of Contract" and "Schedule of Requirements" given in the RFP document. The deviation in the commercial terms, if any, should be clearly brought out in the deviation statement.
5. The bidders shall quote as per the technical specifications complete in all respects. The deviations in the technical specifications, if any should be clearly brought out in the deviation statement.
6. In case, the last date of bid submission/opening falls on a gazetted holiday or the said date is subsequently declared a holiday after the date of publication of RFP/tender document, the last date for opening of the bids shall be the next working day at the appointed time.
7. Bids from traders, agents, brokers and middlemen will not be accepted.

TECHNICAL SPECIFICATIONS FOR ORDINARY BUS BODIES

1. Chassis Specifications:-

Manufacturer:- M/s Tata Motors
Model :- FES Chassis LPO 1613
Emission Norms:- BS-IV
Wheel Base:- 5545 mm with 60% ROH

2. General Design

Stream-lined and balanced bus body with two folded type pneumatically operated Jack knife door with double roller bearing bushes and bottom & located in front of front wheel of the chassis, with a provision for mechanical operation in case of pneumatic failure. A separate emergency door and door for driver shall be provided. It should conform to latest CMVR as notified by Union of India. The structure of the bus body, general appearance and seating lay out etc. shall be in accordance with the technical specifications mentioned in this RFP. Bus body shall comply with the AIS 052 bus code (Revised up to date) in line with **TYPE II NDX** category of bus, latest CMVR as notified by Govt. of India.

MOST IMPORTANT:-All the specifications are to be in consonance with the relevant AIS 052 bus code (Revised up to date). Latest adopted relevant AIS/BIS Specifications on any particular aspect, sub assembly, material/processes, etc. These specifications shall supersede any other factor. In case of any contradictions, it shall have to be consulted with Chandigarh Transport Undertaking to take guidelines. Any deviations from above shall be monetarily penalized and the cost shall be recovered from the successful bidder from pending bills or bank guarantee.

3. Detailed Technical Specifications:-

1	Bus characteristics	
1.1	Bus dimensions mm	
A	Overall length (over body including bumper)	As per Drawings attached and drawings to be got approved from CTU
B	Overall width (sole bar/floor level- extreme points)	Nor to exceed 2600 mm/As per AIS-052
C	Overall height (unladen-at extreme point)	As per Drawings attached and drawings to be got approved from CTU
D	Wheel-base of Chassis	5545 mm
E	Front overhang	As per Drawings attached and drawings to be got approved from CTU

F	Rear overhang	As per Drawings attached and drawings to be got approved from CTU
G	Floor height above ground (mm)	900 mm
2	Bus gates/Doors	ARAI/CIRT/ICAT Certificates required for performance
2.1	Location of gates	Two Doors, one front side and another at rear as per Drawing attached.
2.2	Type of doors	Pneumatic Doors, Jack and Knife type open able by Driver only through Switch.
2.3	Operating mechanism	Electro pneumatically controlled.
2.4	Opening closing time in seconds per operation	≤ 4
2.5	Positions of door controls ensuring display of open/close status on dash board	On dashboard. Controls also inside & outside of doors for emergency operation.
2.6	Passenger safety system - allowing bus motion on doors closing and doors opening only when the bus is stopped	Mandatory
2.7	Front service doors - near side:	√
A	Clear door width (fully opened) in mm	As per AIS 052/As per Drawing Attached and final drawings to be got approved from CTU
B	Door height in mm	As per AIS 052/As per Drawing Attached and final drawings to be got approved from CTU
C	Positioning front service gate	As per Drawing and final drawings to be got approved from CTU
D	Number of gates	1
2.8	Rear service doors (near side):	√
A	Clear door width (fully opened) in mm	As per AIS 052/As per Drawing Attached
B	Door height in mm	As per AIS 052/As per Drawing Attached
C	Positioning rear door	As per Drawing Attached
D	Number of gates	1
2.9	Maximum first step height (mm) from ground – un-laden position in buses with:	
A	Stepped type entry	300 mm

B	Maximum height (mm) of other steps	200 mm
2.10	Emergency doors/exits or apertures (numbers)	As per latest AIS 052 Guidelines
A	Dimensions mm	As per latest AIS 052 guidelines
2.11	Door closing requirements for bus movement -	Bus could move only after door closing completed
A	Power operated service door - construction & control system of a power operated service door be such that a Passenger is unlikely to be injured/trapped between the doors while closing.	As per AIS 052
B	Door components	As per AIS 052
C	Door locks/locking systems/door retention items	As per AIS 052
D	Door hinges	As per AIS 052
3	Bus body	
3.1	Design type approval	
A	Design type approval- all bus body structures & structural aggregates be designed to fulfil the loading, operating & performance parameters using finite element analysis or any other analytic technique for: Strength Stiffness Structural Stability Vibration Safety	Test Certificates required as from CIRT/ARAI/ICAT
3.2	Structural performance	
A	Bus structure to meet requirements of:	

B	Body structure strength test- each type of vehicle be subjected to roll over test on complete vehicle/specified representative section thereof or to an alternate method approved by the test agency	As per AIS 052 Roll Over Test Certificate required
I	Stability	As per AIS 052
ii	Deflection	√
iii	Vibrations	√
iv	Roll over protection	√
C	Joint strength- body panel joints meet requirements of holding the joined panel when subjected to force of 60% of tensile strength of weakest joined body panel.	As per AIS 052
D	Bus body structure evaluation by a & or b	As under
i	Physical testing or	As per AIS 052
ii	Finite element method	As per AIS 052
iii	Roll over tests with the bus rolling from ground level instead of a raised platform. Angular velocity should not exceed 5 degrees/second. All other procedure as per AIS031	(i) Unstable position should not occur before 35°. (ii) No part of structure intrudes into residual space.
	1. Bus tilted to its unstable position	
	2. Bus allowed falling freely under gravity from this position.	
	3. GVW of the bus to be considered	
3.3	Bus structure- materials specs etc	
A	Super structure/Under Structure Details	As per Drawings attached as Annexures, Final Drawings to be approved by CTU
i.	Cant Rail	G.I. Tubular 40x40x2mm
ii	Side Pillar	G.I. Tubular 60x40x2mm

iii	Waist Rail	G.I. Tubular 60x40x2 mm
iv	Front Side Pillar	G.I. Tubular 40x40x2 mm
v	Cant Rail near Rear Service Door	M.S. Angle 35x40x35x1.65mm
vi	Diagonal Bracing	G.I. Tubular 40x40x2mm
vii	Sole Bar	G.I. Tubular 40x40x2 mm
viii	Rub Rail	60x40x2 mm
ix	Skirt Rail	M.S. 40x40x2 mm
x	Wheel Arch	40x20x2mm
xi	Front Show Structure	G.I. Tubular 60x40x2mm,40x40x2mm,40x20x2mm
xii	Passenger Door Section	As per Drawings
xiii	Driver Door Section	-do-
xiv	Floor Structure Assembly	As per Structural Drawings attached.
xv	Floor Longitude	75x40x3.15mm
xvi	Cross member	M.S. 100x50x6mm
xvii	Cross member near front Axle	M.S. 75x40x6mm
xviii	Roof Structure Assembly	As per Structural Drawings attached Annexure-
xix	Roof Sticks	G.I. Sq. Section 40x40x2 mm
xx	Roof Longitude Top Section	19x40x40x40x19x1.6 G.P.S.
xxi	M.S. Angle to be welded with Roof Sticks	35x35x5mm
B	Panelling	

i	Roof panelling: interior	Aluminium Coil 0.91 mm
ii	Roof panelling: exterior	Aluminium Coil 1.21 mm
iii	Side panelling: interior	Aluminium Sheet of 0.91 mm thickness with dust proof high quality paint. The paint should be of such quality as dust repellent.
iv	Other side panels:	
v	Stretch panel: Exterior side panels of stretched GPSP sheet along length of the bus	1 mm G.P. Coil
vi	Skirt Panel	Aluminium Sheet 2.65 mm
vii	Front end interior	To be submitted by manufacturer
viii	Front Show Exterior	G.P. Sheet 18 Gauge
Ix	Rear end interior	To be submitted by manufacturer
x	Rear Panelling exterior	Aluminium Sheet 12 Gauge
xi	Rear End Corners	Aluminium Moulding of 12 Gauge thickness
3.4	Insulation (Roof and Sides)	Thermocole sheet 40 mm thick meeting requirement of flame retardancy, fire proofing and non-in flammability as per applicable standards
A	Roof structure	Thermocole Sheet 40 mm thick.
3.5	Floor type/Materials etc	
A	Type of floor	Flat except at wheel arches bus- seats may be located over the wheel arches
B	Floor surface material	Aluminium Chequered Sheet of 3mm thickness laid over Black tar felt of 2mm laid over floor structure.
3.6	Safety glasses and fittings	Double piece windshield, stylish exterior, combination head lamps etc as per drawings attached

A	Front windscreen (laminated) glass:	Double piece laminated safety glass, with PVB film IS 2553 (Part-2)-1992/latest. Front wind screen glass shape may be curved or plain, flat/curved with curved corners, to match vehicle design and contours etc as per drawings attached.
	Size:	5 mm Dark Green Glass.(Standard design as per Drawings attached)
B	Rear windscreen: (wherever provided)	Double piece flat/curved or plain/flat at centre & curved at corners to match vehicle contours/design. Rear wind screen glass be toughened glass IS: 2553(Part-2)-1992/latest.
	Size:	5 mm Dark Green Glass(Standard design as per Drawings attached)
C	Side windows:	Flat to match bus shape and contour, 1-piece design-fixed toughened glass IS2553 (Part-2)-1992/latest.
	Glass thickness:	5.0 mm
	Light transmission (%) in case of tinted glasses	As per CMVR
F	Rear view mirrors	Inside the saloon area near to the Driver, Outside both sides of the bus and as per requirement of CTU and confirming to CMVR and AIS 052.
3.8	Seating and gangway etc as per AIS 052	Ergonomically designed and extra comfort seats with soft cushion attached, spacious gangway etc.
3.8.1	Passenger seating's	As per AIS 052 and Drawing attached or if better design to be submitted by the bidder. Design and material to be got approved from CTU
A	Seat layout	3x2
B	Seat area/seat space per Passenger (width*depth) mm	As per AIS 052 and drawings attached. Design and material to be got approved from CTU
C	Seat pitch - minimum: mm as per AIS 052	To be approved by CTU before start of fabricating of prototype.

D	Minimum backrest height- from floor to top of seat/headrest	1100 mm from floor as per AIS 052 and subject to approval of CTU
	Seat base height- distance from floor to horizontal front upper surface of seat cushion mm	As per AIS 052 and subject to approval of CTU
E	Torso angle	Minimum 15 ⁰ and subject to approval from CTU
F	Passenger seats with high back rest, contoured to suit human body, padded.	√
G	Seat materials	Cushioned seats with Moulded polyurethane foam as per IS15061-2002 with Raxine cloth. Material to be got approved from CTU
H	Seat frame structure material where required	Frame structure of ERW Steel or Aluminium tubes of 25.4 mm with PVC insulation and subject to the approval by CTU.
I	Free height over seating position mm	More than 900/As per AIS-052
	Seat base height	As per AIS 052
J	Clearance space for seated Passenger facing partition mm	As per AIS 052
K	Seat back/Pad material/thickness:	Polyurethane foam IS15061:2002, 50± 5 mm and subject to the approval by CTU.
	Type	Suitably moulded/fabricated and padded with > 50 mm foam with cloth upholstery
	Upholstery	Pile fabric/jekard 0.7-1.0 mm thickness
L	Area for seated passengers (sq.mm)	To be proposed by the fabricator for approval
M	Number of seats	To be proposed by the fabricator for approval
U	Seat belts & their anchorage	Driver seat (performance etc. as per AIS 052)
V	Performance & strength requirements of passenger seats	As per AIS 052
X	Handles behind Passenger Seats	Of PVC or better material to be fitted on the rear top of passenger seats

Y	Last 6 passenger seats	Back of last six seats to be foldable type so that it can be used as sleeper for
Z	Back material of passenger seats	FRP fixed with handles.
3.8.2	Gangway:	To be proposed by the fabricator
A	Minimum interior head room (centre line of gangway) mm	1900
B	Gangway width (mm) from gates to longitudinal space between seats (access to service doors)	To be proposed by the fabricator during approval of drawings
	Gangway width (mm) in longitudinal space between seats	To be proposed by the fabricator during approval of drawings
	Gangway width (mm) in longitudinal space between seats (rear of rear edge of the rear door in rear engine bus)	To be proposed by the fabricator during approval of drawings.
	Slope of the gangway	As per AIS 052
	General	
3.9	Driver's work place/cabin/seat etc	Height Adjustable, Forward and rear adjustable as per AIS 052
	Driver work place/cabin provided with more privacy, safety and easy access to controls and inter alia equipped with:	State of art driver cockpit station.
A	Lights control	At Dashboard
B	Driver's seat	As per AIS 023 & AIS 052. Driver seat fixed by M/s Tata Motors however cushioning to be done by fabricator.
I	Three way seat adjustments facility and controls	Required
4.0	Corrosion prevention & painting as well as for internal and external structural members.	Corrosion prevention treatment/painting for structural members/components, assembled structure, panels etc as per AIS-052
A	Primer coating	Suitable specification and performance

B	Painting(ARAI certificates/ICAT/CIRT certificates to submitted)	PU paint panel stretch primer, PU primer surface, PU top coat BIS 13213:1991 or latest/international standard as applicable for exterior painting including interior wherever required. shades-IS 5-1978 (or latest) class-A2
i	DFT(in Microns)	5-10 Primer 30-35 Surfacer 30-35 Top Coat
ii	Finish	Smooth, free from blisters,pin holes and sagging etc.
iii	Shade	As per CTU requirement
iv	Mark Resistance	Should not develop nail mark when scratched lightly with finger nail
v	Scratch Hardness	To pass 2500 gm minimum
5	Electricals	
5.1	Electrical Cables	BIS marked, copper conductors with fire retardant as per IS/ISO:6722:2006 as per appropriate class. conductor cross section varying as per circuit requirements, minimum cross-section 0.5 sq mm. quality marking may also be as per equivalent or better European, Japanese, US standards
5.2	Conductor cross section	As above and suitable to carry rated current (Japanese Auto Standard JASO D0609-
5.3	Safety requirements of electrical	As per AIS 052
a	Fuse	As per AIS 052 - fuse of rated current 1.5 times the load current of electrical equipment. Necessary in every electrical circuit
b	Isolation switches for electrical circuits where RMS value of voltage exceeds 100 volts	As per AIS 052. Isolation switch required for each such circuit
c	Location of cables away from heat sources	As per AIS 052- required for each such circuit
d	Type approval of circuit diagram as per standards related to electric equipments/wiring	As per AIS 052 - required for all items and to be submitted by the bidder for mtc. of buses.

e	Battery cut - off switch (isolator switch)	Heavy-duty type capable of carrying & interrupting total circuit load.1 each near battery and driver
5.4	Wind screen wiping & washing system etc:	Electrically operated with two wiper arms & blades; wiper motor heavy-duty steel body with minimum 2-speed operation; wiping system as per CMVR/BIS 7827 Part-1, 2, 3 (Sec.1 & 2)/latest. As per AIS 011
a	Wiper motor	Variable speed with time delay relay as per IS011.20-24 cycles/sec, 24 V*150W minimum.
b	Wiper arm/blade	As per AIS 019/AIS011
c	Wind screen washing system	Required
d	Capacity of washing system tank litres minimum	10
5.5	Lighting - internal & external and illumination	As per AIS 052
5.6	Illumination requirements/performance of:	
a	Side Indicators	Required State of Art and as per approval of CTU
b	Dash board tell tale lighting/control lighting	As per AIS 052 & bulbs tested for photometry as per IS 1606:1996
c	Cabin lighting and Passenger Area Lighting	Sufficient LED Lights as per AIS 052 and as per approval of CTU.
d	Head Lights	Number of head lights and design to be approved by CTU
6	Safety related items	
6.1	Fire extinguisher	Dry chemical powder type GSR– 853 (E) dated 19.11.2000 (or latest) and as per AIS 052, ISI Marked
6.2	First aid box	1 Number, as per provision of CMVR complete with first Aid items like Bandage, betadine tube, cotton etc.
6.3	Handrails Minimum length*diameter*height above floor: mm	Colour contrasting and slip resistant as per drawing enclosed
6.4	Entrance/Exit Guard/Step well guard:	Required as above.

6.5	Emergency exit doors, warning devices etc:	As per AIS 052/CMVR
6.6	Front/Rear door, step well lights, door open sign	LED Bulbs as per AIS 008
6.7	Mirrors right/left side exterior/interior	Convex As per AIS 001 & 002. Interior with double curvature
6.8	Towing device front/rear	Heavy duty 1.2 times (minimum) the kerb weight of the bus within 30° of the longitudinal axis of the bus. As per CMVR & IS 9760 - Ring Type
6.9	Warning triangle	As per AIS 052/CMVR
6.10	Fog lighting	LED type mandatorily Required
6.11	Bumpers - front and rear	M.S Plate 3mm thick.
	Impact strength for bumpers	Meet requirements
6.12	Tool Box	To be provided as per requirement of CTU
6.13	Suggestion Box	To be provided.
6.14	Movable Arm Rests	Foldable Arm rest to be provided at the corner of each seat ending gangway
7	Miscellaneous items/requirements	
7.1	Windows	
A	Type of window	Sliding window panes
B	Minimum height of window aperture (clear vision)	As per Drawings attached and as per approval of CTU
C	Minimum height of upper edge of window aperture from bus floor	As per Drawings attached and approval/As per AIS 052
D	Minimum width of windows (clear vision zone)	As per Drawings attached and as per approval/As per AIS 052
7.2	Saloon luggage carrier (CLC) and Main Luggage	As per Drawings attached and approval of CTU
A	Positioning of Cabin Luggage Carrier	
i	Width from side wall (mm)	250
ii	Height from roof (mm)	200
B	Main Luggage Area Boot	At the back or side of the bus along with state of art locking Arrangement subject to approval from CTU

8.0	Maximum noise levels inside the saloon -test procedure as per AIS 020	84 dba
9.0	Destination Board to be fitted	As per UBS-II Specifications. (ARAI/ICAT/CIRT Certificates)
	One at Front and one at Rear	
	One at Inner	
10.0	CCTV Cameras and GPS Device	There should be provision wiring for CCTV cameras and GPS device as per requirement of CTU.
11.0	Roof Luggage Carrier	To be provided if AIS-052 permits.

4. **METAL TREATMENT:**

All the structural members and other body components (except Stainless Steel Pipes and G.I.Pipes) shall be zinc passivation as per approved hot dip process of specified minimum 7 tanks with degreasing, de rusting, rinsing, zinc pasivations etc. as per latest specification of IS latest 'A' class coating before assembling to make them rust proof during the entire life of bus body. The zinc passivation coating shall be of uniform thickness of 25 to 30 microns, coating shall be of crystalline nature and without any sponginess. All zinc passivation components shall be coated with minimum 2 coats of approved anti rust epoxy coating. All aluminium panelling sheet shall be chemically etched for good bonding of paints.

5. **BODY MOUNTING:**

Body shall be mounted on chassis frame with suitable anti shear material of thickness 8 mm (balata packing as per IS : 1370). It should be interposed between chassis frame and body cross bearer plates. The body mounting should be with galvanized U bolt 16 mm dia EN 15 Gr. as per IS:5517 (modified till date) with nyloc nut as per IS:1364 : 1983. U-bolts should be fitted diagonally / straight. During fitment, the arms should pass through the pipe sleeves and balata packing. During fitment of U bolts, semi elliptical Aluminium spacers should be provided. U bolt nyloc nuts should be tightened properly with torque wrench at the specified torque of 12 to 14 mkg. No hole should be drilled in the chassis without approval as well as no welding shall be allowed on the chassis members. The front end structure should be properly supported with detachable brackets on the front. The load of the front and rear end structure should not be allowed directly on the frame. Provision should be made to detach the front bumper and other body component of the front structure to facilitate engine removal. Only MIG welding is allowed on body, structure & sheet etc. Vertical welding of structure members must be avoided and not allowed. All welded joints shall be well ground for smooth surface. All front structure bolts should be locked by nyloc nuts.

6. **UNDER FRAME & STRUCTURE:**

- (a) The under frame and super structure shall be suitably designed to carry dense crush load of maximum 52 passengers with full seating capacity (assuming an average weight of 68 kg per passenger with luggage of 7 kg. per passenger) including, the superstructure, complete bus tare weight, etc and meet performance requirements under various loads etc as indicated. Moreover, the structure shall be designed to withstand the transit service condition of operation throughout its service life.
- (b) The bus body shall be mounted on Chassis as defined in bus code AIS 052 and the super structure shall be fabricated using G.I. Tubular section.
- (c) The comprehensive multi-stage antirust treatment as and where required be done by way of Hot Phosphating/ Galvanizing shall be provided to bus flooring, sides, roof, under structure, as per BIS 3618 Class-A2/ relevant BIS for Galvanizing of MS Structural Members for resistance corrosion or deterioration from atmospheric conditions & road salts so as to enable them & frame to last for at least 8 years or Ten Lacs Kms whichever is later. The samples of all materials & connections shall withstand a two weeks (336 hours) Salt Spray test in accordance with ASTM procedure B117 with no structural detrimental effect to normally visible surface & no weight loss over 1%. The details of treatment provided with relevant specification to meet the requirements of minimum 8 years life in intercity operational environment. The system of corrosion prevention of the internal surfaces of structural tubing shall be provided and details of the same be given in the offered documents.

- d) The front and rear structure design shall be energy absorption type to reduce impact stresses into under frame/side structures/ other areas of the vehicle. The damaged area of the vehicle shall be easily repairable and or replaceable in the event of major damage.
- (e). The entire surface of bus under floor and sides exposed to ground shall be covered with appropriate corrosion prevention & flame retardant paint coating for protection against harmful effects of water, mud etc and to retard flames, if any. The wheel housings shall be constructed to contain tyre bursts during operation and be flame retardant in case of tyre fire.
- (f) MIG welding shall be used for steel structural member fabrication.
- (g) Sufficient clearance & air circulation shall be provided around the tyres, wheels & brakes to preclude over-heating when the bus is operating
- (h). After anti corrosive treatment, structural members shall be coated with anti rust epoxy coating.
- (i) Under floor to sidewalls shall be sealed to prevent dust ingress with tarfelt.

7. STRUCTURE REINFORCEMENT:

The body structure shall be adequately reinforced with diagonally cross bars & gusset (Kunia) at requisite places for uniform strength and life of bus body.

ROOF STICKS:

Roof sticks and Roof Longitude shall be of G.I. Tubular (40x40x2)mm, with proper reinforcement by Gussets and Kuniya. All welding should be zigzag welding by MIG welding.

Side structure shall be of G.I. tubular (60x40x2)mm, all horizontal and vertical parts should be welded with MIG welding with proper reinforcement by gussets/Kuniya. At Sole bar level MS plate of 6 mm thick shall be welded with stump pillars and cross bearers on either side.

Cant rail welding to be done zigzag at a distance of 100mm pitch and to be welded minimum 25mm length at every spot. Between the Roof stick of passenger door one GI tubular pipe be welded for reinforcement just above the passenger door and simultaneously one GP Sheet 18 gauge thick be welded on the outer side for reinforcement. Similarly one such sheet be welded over driver door and emergency door roof stick.

Seat Rail shall be of 14G MS Sheet.

8. FLOORING STRUCTURE:

The layout and construction of structure should be on MS Channel of dimension 50x100x50x6mm & U channel of 10G MS sheet supporting floor longitudinal. Side pillars shall be mounted on floor structure by placing boxes of 6mm thick MS plates. Central longitude shall also serve as central floor joint support.

9. FLOORING:

After making complete structure true and square and welding properly, the structure flooring is to be laid down with 3.15 mm Chequered Aluminium sheet with Tar felt layer of 2mm to avoid dust ingress inside the saloon area.

10. DESTINATION BOARDS

One number LED destination board on left hand side behind front wind screen

glass and one number LED destination board on right hand side behind the rear back glass shall also be provided as per AIS 052 bus code (Revised up to date). One number on inner side of the saloon to be provided for the convenience of the passengers. All the destination as well as inner display panel to be provided as per UBS-II specifications issued by MoUD under JnNURM-II.

11. SPARE WHEEL CARRIER

One number SPARE WHEEL CARRIER will be given along with the chassis, which should be fitted to the floor structure by using MS rolled channel and MS angles. The body lid to be provided as that of courier box lid.

12. SIDE EXTERIOR PANELLING:

After approval of structure and before panelling, structure members duly treated with Anti-rust primer shall be further coated with dielectric coat anti corrosive black paint. Before panelling 40 mm thick thermocole sheet is to be packed properly in the structure waist rail to floor level. After thermocole packing, stretch panel of 1mm GP Sheet properly welded should be fixed waist rail to anti drumming rail and from anti drumming rail to skirt rail 12 G Aluminium sheet. Panelling shall be provided and shall be riveted with NR 6. Aluminium panel shall be chemically treated (chromotised) and inside shall be coated with thick coat of anti drumming compound in minimum 2 coats to avoid drumming and vibration. The riveting should be done by pneumatic riveting.

13. ROOF EXTERIOR PANELLING:

Before roof exterior paneling specified tar felt covering 2 mm thick on full length and full width of roof sticks and roof longitudes, protruding min 2 mm outside the width of roof sticks and roof longitudes shall be provided. Roof exterior panel shall be of 18 G thick Aluminium sheet in one piece along full length. The exterior panel roof joints shall be longitudinal and shall be inter locked by joggling and dust binding and shall be solid riveted NR5, 5 mm dia with roof sticks and roof longitudes. Joggling joints should be properly embodied in the roof longitudes to get smooth surface and no joint should protrude above panelling level. The riveting pitch at cant rail should not be more than 75 mm. Joggling joints & other joints of the roof shall be properly filled with sealant making it leakage free.

At cant rail level a continuous water channel of INDAL 6250 section shall be provided on longitudinal sides of roof for drainage of water and to prevent the water to fall on the windows and to ensure water proofing. The water channel should also be provided above the rear wind shield glasses to avoid water leakage. For proper riveting of water channel to the cant rail, aluminium beading INDAL 5606 shall be fitted on the water channel. Joint of water channel must be filled with sealant to make it water proof. The front exterior roof panel shall be riveted with the front dome with MS solid rivets of 5 mm dia and MS/Al. beading with the pitch of 75mm. Similarly the rear dome shall be of 18 G Aluminium sheet and shall be riveted with roof sticks with MS solid rivets of 5 mm dia and beaded with MS/Al. beading with rivets at 75mm pitch.

14. REAR EXTERIOR PANELLING:

The complete rear panelling shall be of 12 G aluminium sheet with the provision of Luggage space if possible.

15. FRONT SHOW PANELLING:

Elegant looking front show of 18G G.P. Sheet materials Show should have aerodynamic design so as to reduce air drag & to improve fuel economy

16. **INTERIOR PANELLING:**

Interior roof & side panel shall be done with 20G (0.91mm) Sheet approved by Chandigarh Transport Undertaking. Interior panelling should conform to AIS-052.

17. **HATRACKS:**

An open type light luggage hat racks (As per Drawings) would be provided inside the passengers saloon both sides.

18. **DOOR:**

There shall be two saloon doors as mentioned in the drawing and one driver door in the right side near the driver seat & one emergency door should be provided.

The saloon doors shall be pneumatic / power door operated by the drivers through push button. All doors should be as per AIS 052 bus code (Revised up to date).

19. **WINDOWS**

Toughened glass of 5 mm thickness Light green tinted colour will be used. fixed type window glass have to be provided. The glass and window dimensions should be as per AIS 052 bus code revised up to date specifications.

20. **FRONT & REAR BUMPERS:**

The bumpers should be curved out of minimum 3 mm thick MS sheet and should be of most modern design. The front bumper should be in three pieces and as per AIS 052 bus code revised up to date specifications.

21. **WIND SCREEN:**

The front wind screen would be in two pieces as per approved drawings and technical specifications.

22. **BATTERY BOX:**

Battery box will be constructed on the left side of the bus body with flap type cover duly hinged. Sliding battery holder with appropriate battery fixing devices and slide lock for easy maintainability of the batteries. Acid proof lining should be provided inside the battery box. One drain hole with NL type 20 mm dia pipe shall be provided to drain water.

Suitable rubber grommet shall be provided in the holes from where battery cable passes to avoid direct contact with metal parts. One MS flat of size 30x30 mm be provided with 2 Nos. wing nuts to hold it in position.

2nos of railway locks 30x6 mm be provided on the battery box cover and one van lock at the centre at bottom.

23. **ELECTRICAL SYSTEM:**

All Electrical system and fitments should be as per AIS 052 bus code revised up to date specifications. It should be supplied wired up and connected. Wires should run through PVC sleeve and so arranged in the middle of roof top with suitable cover on the right of horizontal standee bar that this can be readily inspected and renewed without disturbing the interior finish of the bus. All wires should be PVC covered type as given below:

I. **TYPE OF CABLE USED**

PVC insulated LT wire conforming to IS: 465-198984. II.

SIZE OF CABLES:

a) **Saloon wiring:**

4 mm PVC insulated 15/0. /1 LT wire conforming to IS: 2465-1984.

b) MAIN SUPPLY SWITCH BOARD.

6 & 8 MM PVC insulated LT wire 36/0.3/2.5 conforming to IS: 2465-1984.

- II. Positive wire shall be in red colour and negative wires in black colours other colours may be used for loops etc. for special identification purpose. As per AIS 052 bus code revised up to date specifications.
- IV. The earth return system shall be used for bus body wires.
- V. In order to ensure adequate illumination in the saloon area minimum 6 nos. LED roof lights of state of Art design type shall be provided.
- VI. Minimum 2 Nos. blue LED Night lamps shall also be provided inside the saloon for convenience to the passengers during night travelling but illumination should be such that Driver may not disturbed in driving of bus at night.
- VII. One LED roof light to be provided at top of passenger doors with switch near it to facilitate conductor lighting at his own will. 1 No. LED roof light may also be provided in the driver cabin.
- VIII. Charger for charging ETM M/c's near conductor seat.
- IX. A suitable battery cut off switch of specified make shall be provided in the driver cab behind the driver seat connecting the self starter assembly so that during short circuit, the engine may not start.
- X. Fuses or cut out should be of domestic type made out of Bakelite (unbreakable). The wiring should run through suitable PVC pipes and should be covered with suitable metal molding. One control board next to the instrument panel in front of driver seat shall be there to operate piano type switches fitted on junction box on the panel.

24. PASSENGER SEATS:

The passenger seats design should be got approved from the Chandigarh Transport Undertaking conforming to AIS 052 Revised up to date specification (NDX Type -II) and CMVR. Passenger seats be provided with the following specifications.

- (a) 3x2 LAY OUT : passenger bus seats with Jacquard upholstery shall be fitted by the body builders as per seat specifications, layout & drawing conforming to AIS 023.
- (b) Seat pitch (back to back distance) shall be maintained strictly as admissible in the Bus code AIS 052 Central Motor Vehicle rules. The seat frames legs shall be bolted properly in seat rail on the side and with floor longitude in the middle in the gangway side with 8mm high tensile bolt fitted with plain washer and nyloc nuts

25. Fire Extinguisher and First Aid Box

Fire Extinguisher and First Aid Box to be provided as per AIS 052 and CMVR.

26. Handrails, Handholds, Stanchions & Window Guardrails

Hand Rails:- Suitable handrails to be provided

Hand Holds:- Sufficeint hand holds to be provided as per approval of CTU.

Stanchions:- Section as per approved Drawings

Window Guard Rails:- Two nos. to be provided

27. THE FOLLOWING MISCELLANEOUS FITTINGS SHOULD BE PROVIDED

- a) 2 Nos. rear view mirror, (one on each side) of heavy duty adjustable convex type should be provided with good quality brackets on the exterior panel at places convenient to the driver to see the traffic coming from rear as per AIS 052 bus code (Revised up to date).

- b) Front bumper shall be fabricated with minimum 3mm MS sheet in 3 pcs. Number plate of size 20"x7" should be pressed sunken type in the centre of the bumper. As per AIS 052 bus code revised up to date specifications.
- c) One step of size 12" in to 8" with minimum 10G aluminum chequered shall be provided at the centre of the front bumper to facilitate the driver to clean the wind screen along with handle in the center to hold.
- d) Retro Reflective tape should conform to AIS 090 code. It should to be pasted on front bumper, rear bumper & both sides of the full body in the size, color & specification as per AIS90 & AIS 052 revised up to date.
- e) Drop forged toe hook shall be provided on the rear and front bumper at the centre position.
- f) One sun visor of approved make be fitted on the driver side.
- g) 2 warning triangles/reflectors of approved make be fitted on the rear/front end as per relevant AIS code.
- h) One step of 6x6" size shall be provided near driver door and near Emergency Door.
- i) Diesel tank neck cover shall be provided (flap type) with one tower bolt. j) Rear tail light shall be provided with suitable cover.
- k) Two Rubber buffer rail (rub rail) shall be fitted one on the anti drumming rail other on the skirt rail. Rubber buffer shall be secured with pop rivets and clamped with 2 suitable clamps in each bay. At the ends suitable closing ends shall be provided.
- l) The rear number plates should be fixed below waist rail.
- m) 10mm thick NUPRIN rubber mat at pedal floor, duly aluminum beaded should be provided.
- n) Each bus should have provision for fitment of two CCTV camera, one in front & one in back and one inside the passenger cabin, GPS unit.
- o) One proper sized dustbin should be provided near to the front passenger door.
- q) 2 Nos. Guard Rails to be provided near to the passenger doors for the convenience of passengers for boarding.

27. PAINTS:

- (a) All the structural members of the bus shall be treated for corrosion prevention internally as well as externally and painted wherever required. The Polyurethane (PU)/ Metallic paints conforming to AIS 052 bus code as applicable shall be used for exteriors painting of the bus including interiors of the bus. Colour scheme shall be provided by Chandigarh Transport Undertaking. Details of paints used, surface treatment & preparation, corrosion prevention treatment, base primer coating, number of paint coats to be applied etc shall be provided by the successful Bidder.
- (b) All exterior surfaces shall be smooth & free of wrinkles & dents. Exterior surface to be painted shall be properly prepared as required by the paint system supplier, prior to application of paint to assure a proper bond between the basic surface and succession coat of original paint for the service life of the bus. Paint shall be applied smoothly and evenly with the finished surface free of dirt and the following other imperfections:
 - A. Blisters or bubbles appearing in the topcoat film.
 - B. Chips, scratches, or gouges of the surface finish.
 - C. Cracks in the paint film.
 - D. Craters where paint failed to cover due to surface contamination.
 - E. Overspray.
 - F. Peeling.
 - G. Runs or sags from excessive flow and failure to adhere uniformly to the

surface. H. Chemical stains and water spots.

28. COLOUR SCHEME AND GRAPHICS:

PU PAINTS/ METALLIC PAINTS shall be used. Colour scheme shall be approved by this undertaking separately. All mandatory signage as required as per bus code AIS 052 revised up to date have to be provided.

Exterior, interior colour schemes to be painted and logo/ graphics design will be intimated to the successful Bidder before the completion of panelling of the proto type bus. It will be responsibility of successful bidder who shall take instructions from this undertaking for such details.

29. PROTECTION TREATMENT AND PAINTINGS:

It should be as below :-

- a) The Epoxy coating & paint shall be of approved specifications.
- b) All joints shall be applied with liberal coat of epoxy compound on the meeting area of both the compartment to protect against corrosion before assembly.
- c) Wherever aluminum is joined to steel or dissimilar metals same shall be covered with thick layer anti corrosive body compound.
- d) The entire surface of bus body under floor exposed to the ground shall be covered with thick layer anti corrosive body compound.
- e) All the joints on the exterior roof paneling shall be made water proof by liberal application of silicon sealing compound on both the meeting surfaces before assembling.
- f) All the Aluminum paneling's shall be suitably treated as per approved process before painting to ensure proper paint adhesion before fitting.
- g) All paneling after fitting shall be under final painting.
- h) Surface and stopper (putty compatible to paint) shall be applied on all hand beaten and dented panels to fill up all the unevenness so as to have present smooth surface for painting. However, the amount of putty used shall be minimum and efforts shall be made to obtain proper finish by better workmanship of various jobs before painting.
- i) Sufficient drying time between each successive coat shall be allowed as per the recommendations of the Paint Manufacturers.
- j) Each coat except the final finish coat shall be suitable attired and washed down with sand paper and water before applying the next coat.

30. GENERAL DIRECTION:

- A. The body should be rattle proof, dust proof and leak proof. When the chassis remain in the custody of the body builder, they should maintain the batteries by TRICKLE CHARGER free of cost. Modification to the fuel tank/radiator neck if any, should be carried out by the body builder as per directions without any cost without affecting the warrantee provided by vehicle manufacturer.
- B. The vehicle shall be road tested before final inspection for the following possible defects:
 - I. Dust proofness
 - II. Rattle proofness of windows, body panels, parcel racks doors, seat frames, dash board etc.
- C. Following workmanship must be carefully followed:
 - I. All casting must be truly formed and free from visible blowholes.
 - II. All the bolts and rivets should be well fastened.
 - III. All welded joints must be chipped and well ground to get smooth surface. IV. Sharp corner should be ground and made smooth.

- V. Whether pitch between rivets / bolts are not specified, it shall be 100mm.
- VI. Before commencement of the bus body fabrication all the important units of chassis i.e. alternator, self starter, radiator, tyres, batteries, plastic air pipes etc. to be protected to prevent from damages due to welding, drilling, cutting, hammering, riveting, falling of metal scraper dust particles etc.
- VII. Cleats shall be degreased by duly immersing in soda/detergent water after punching without fail.
- VIII. Cleats shall be degreased by duly immersing in soda/ detergent water after punching without fail
- IX. All the corner joints in the saloon area should be properly covered with aluminium extruded sections or other suitable material.
- D) I. Body builders are requested to offer complete stages for inspection. They are bound to use only specified material while fabricating the buses. The material used in the body shall be got tested though ARAI/ICAT/CIRT or other recognized laboratory specified by Govt. of India.
- II. In case it is noticed that material used in the bus body does not conform to the specifications, testing charges shall be recovered from the body builders. In case of failure of such samples of non-specified material, 100% cost of material used in that lot i.e. work order shall be recovered from the body builders.
- F) Bidders should fabricate the bus body as per AIS 052 code and CMVR to ensure that there should be no problem in registration of Buses in Chandigarh.
- g) The workmanship of complete bus should be neat and clean. The corners should not have sharp edges and should be covered with aluminium extruded sections or other relevant material.
- h). All the joints should be covered with suitable material like aluminium extruded sections or other material.

Bus Body confirming to Standard Specifications:-

The material used in the construction of buses shall be as per Bureau of Indian Standards (BIS)/ Automotive Industry Standards (AIS) specifications meeting/ surpassing the performance & other requirements as given in the AIS0-52 Rev-I Bus Code. In absence of above specifications, Association of State Road Transport Undertakings (ASRTU) specifications could be followed. Wherever Indian standards are not available, internationally acceptable standards may be referred /indicated. Specifications standards wherever indicated in the Technical Specification shall be conforming to the Specification Standards as amended upto date/ or latest. The safety requirement shall be as per Bus code.

BIS Standards are available from Bureau of Indian Standard, Manak Bhawan, 9-Bahadur Shah Zafar Marg, New Delhi-110002. Web site: <http://www.bis.org.in>. Similarly, AIS 052(Revision 1 or upto date) & other code Standards are available from Automotive Research Association of India, Post Box No.832, Pune -411 004. Web site: <http://www.araiindia.com>. ASRTU Specifications are available from Association of State Road Transport Undertakings, Plot No. 4-A, PSP Block, Pocket-14, Sector-8, Dwarka, New Delhi-110075. Web site: <http://www.asrtu.org>, E-mail address: asrtu@de12.vsnl.net.in.

LIST OF MATERIAL AND SPECIFICATION FOR FABRICATION OF BUS BODIES

S.NO.	NAME OF ITEMS	SPECIFICATIONS (or As per latest AIS bus code)	SUGGESTED SOURCES
1.	Aluminum sheets	IS:737:1966 (3R)(up to latest)	M/s. HINDALCO M/s. BALCO M/s NALCO
2.	Alum. Extruded Sections	IS:733:1993)(up to latest)	M/s. HINDALCO M/s. INDAL M/s.BALCO M/s NALCO
3.	MS sheets a) CRCA Sheets 1mm to 2mm b) HRCA Above 2mm	IS:513: 1986)(up to latest)	M/s. SAIL M/s. TISCO M/s. IISCO
4.	M.S. Channel 50x100x50x6mm 40x75x40x6mm	As per latest AIS/BIS specification	---do----
5.	M.S. Angle a) 75x75x6mm b) 50X50X6mm	IS:2065:1984)(up to latest) IS:808:1984)(up to latest)	M/s. SAIL M/sTISCO M/s IISCO
7.	CR Galvanized Rectangular/Square pipe 60x40x2mm 40x40x2mm	As per latest AIS/BIS specification	
8.	Glasses: a) Front wind screen 8.0 mm thick float glasses Curved. „AA“ Quality Laminated Safety glass, Clear wave Free b)Rear wind screen Glass 6.0 mm thick „A“ quality c) Window Glasses5.0 Tinted light grey/green	As per latest AIS/BIS specification	

9.	EPDM Rubber Profiles 38mm & Window Profile	As per Bus Code AIS-052	
10.	Flooring Alum. Chequered.	AS:319:64:2002(up to latest)	M/s. HINDALCO M/s.BALCO M/s NALCO
11.	Wiper Machine 24 V	AIS-052 ARAI APPROVED	
12.	Passenger Seats Fix Seat3X2Config. Bus Readymade Bus Passenger Seats	AIS023 & AIS052, ARAI APPROVED	M/s. Harita Seating Systems Ltd., Hosur M/sPinnacleInd.Ltd, Pitampura
13.	Driver seats	----do---	----do---
14.	Paints P.U	As per latest AIS/BIS specification	M/s Dupont Paints M/s Asian Paint M/s Berger Paints
15.	Chassis U bolt White draw bar high tensile Gr.8.8 16mm Dia <u>Bolts & Nuts</u> a) Bolts High Tensile Hexagonal bolt, fine thread b) Nuts Nyloc anti- vibrative	AS:166:56 March,98(upto latest) IS:1366:1984(up to latest) IS:1364:1983)(up to latest)	
16.	Al. Alloy solid rivets	NR-5 As per IS:740 :1977(up to latest)	
17.	Al. Blind rivets	NR 6, AS:226 :R91(up to latest)	
18.	MS Solid rivets6mm Dia	IS:2155:1964 (up to latest)	
19.	GP Sheet plain and Corrugated	IS :277:1985)(up to latest)	M/S SAIL M/S Tisco
20.	ERW Steel pipe1.6 & 2mm thick(dia as per required)	IS:3601:1984)(up to latest)	

21.	Electric Item: a) LT Wire 4 mm & 6 mm Size b) Battery Cable Size 325/0.45mm	As per Bus Code AIS-052	
22.	Head light LED	As per latest AIS/BIS specification	
23.	Wiper Arms & Blades Heavy Duty Link length 500 mm	As per latest AIS/BIS specification	
24.	LED Lights in saloon	As per latest AIS/BIS specification	M/s. Phillips M/s. Power Electronics
25.	Tar felt 2mm thick	As per latest AIS/BIS specification	M/S Shalimar Tar Products
26.	Electrical Switch	As per latest AIS/BIS specification	
27.	Anti drumming compound	As per latest AIS/BIS specification	
28.	Balata Packing 8mm thick	As per latest AIS/BIS specification	
29.	Mig Welding wire	As per latest AIS/BIS specification	
30.	Steel screw of various	As per latest AIS/BIS specification	
31.	Carriage bolts	As per latest AIS/BIS specification	
32.	Heavy duty door locks	As per latest AIS/BIS specification	
33.	Grab Handles 300/12mm thick Chromium plated single Piece	As per latest AIS/BIS specification	
34.	Brackets & drop forged Hinges.	As per latest AIS/BIS specification	
35.	Toe hook forged	As per latest AIS/BIS specification	
36.	Window latches Heavy duty forged	As per latest AIS/BIS specification	
37.	Railway type lock 6mm heavy duty forged	As per latest AIS/BIS specification	
38.	Tower bolts	As per latest AIS/BIS specification	
39.	Thermocole 40mm & 20mm thick	As per latest AIS/BIS specification	
40.	Terrene felt 4 mm thick	As per latest AIS/BIS specification	

SECTION VIII BID FORM, ANNEXURES AND OTHER FORMATS

ANNEXURE- 1

PROFORMA FOR STATEMENT OF DEVIATIONS

(FROM TERMS & CONDITIONS STIPULATED IN INSTRUCTIONS TO BIDDERS,
GENERAL CONDITIONS OF CONTRACT, SCHEDULE OF REQUIREMENT)

Bid No. _____

Date of Opening:

The following are the particulars of deviations from the Terms & Conditions stipulated in instructions to Bidders, General Conditions of Contract & Schedule of requirements of the RFP Document.

CLAUSE DEVIATION REMARKS (including justification)

We accept all the Clauses of Instructions to Bidders, General Conditions of Contract & Schedule of Requirements of the RFP Document except the above mentioned Deviations.

(Signatures and Seal of the Bidder)

NOTE: Where there is No Deviation, the statement should be returned duly signed with

an endorsement indicating **“No Deviations”**.

ANNEXURE – 2

PROFORMA FOR STATEMENT OF DEVIATIONS (FROM TECHNICAL SPECIFICATIONS)

Bid No. _____

Date of Opening:

The following are the particulars of deviations from the requirements of the Technical Specifications.

CLAUSE DEVIATION REMARKS (inclusive justification)

We accept all the Clauses of Technical Specifications of the RFP Document except the above mentioned Deviations.

Signatures and Seal of the Bidder

NOTE: Where there is No Deviation, the statement should be returned duly signed with an endorsement indicating “**No Deviations**”.

ANNEXURE – 3

PROFORMA FOR SUBMISSION OF BID

Bidders are required to fill up all the blank spaces in this Bid Proforma and its enclosures.

Bid No. _____

Date of Opening:

To _____

1. Having examined the 'Instructions to Bidders' 'General Conditions of Contract', 'Technical Specifications', 'Schedule of Requirements' and the Proformas /Annexures for the above Bid, we the undersigned offer to fabricate and warrantee the whole of the said Scope of Work in conformity with the said Conditions of Contract and Technical Specifications for the sum mentioned in Financial Bid submitted separately, or such other sum as may be ascertained in accordance with the conditions. The details of the items/services for which we have submitted our Technical Bid and for which we have quoted the rates in our Financial Bid are given in Format (indicated in the Technical Specifications).

26. We undertake, if our Bid is accepted, we shall commence the fabrication of Buses as per delivery schedule offered by us to complete the fabrication of the Buses as per the Delivery Schedules and to warrantee and satisfactory working of the buses/fulfill our obligations under the Warranty for the period as per RFP Document.

3. If our Bid is accepted we will furnish a Bank Guarantee for Performance as Security for the due performance of the Contract.

4. We have independently considered the amount shown in 'General Conditions of Contract' as pre-estimated liquidated damages and damages and agree that they represent a fair estimate of the damages likely to be suffered by you in the event of the work not being completed in time.

5. We agree to abide by this Bid for a minimum period of 150 days from the date of opening and it shall be remain binding upon us and may be accepted at any time before the expiration of that period or any extended period mutually agreed to.

6. We agree to Clause of 'General Conditions of Contract' regarding increase in number of buses ordered.

7. This bid, together with any further clarification/confirmation given by us and your

written acceptance thereof, shall constitute a binding contract between us.

8. We understand that you are not bound to accept the lowest or any offer you may receive against this bid. We also agree that you may change/modify the evaluation criteria as specified in the RFP document.

9. If our Bid is accepted, we understand that we are to be held solely responsible for the due performance of the Contract.

10. All enclosures and relevant documents forming a part of the proposal are complete and attached herewith duly verified by officials authorized to do the same.

Dated _____ day of _____ 2017

Signature & Name: _____ in the capacity of
_____ duly authorized to sign Tenders for and on behalf of

Address

Witness

Signature of Bidder

Name _____

Address _____

Occupation _____

ANNEXURE - 4

FORMAT FOR PRICE/ FINANCIAL BID FOR BUS

Tender Inviting Authority						
Name of the work: Tender for the purchase of Fabrication of 40 Nos Ordinary Bus body on passenger chassis Tata Model 1613 having 5545 Wheel base and 60% ROH						
Contact No.						
Name of the bidder:						
DETAIL OF PRICE BID						
Sr. No.	Description	Unit	Quantity	Unit Price (In Rs.)	Total Rs.)	price (in
1	2	3	4	5	6	
	Fabrication of Bus Body Diesel BS-IV buses (including all taxes and Govt. levies)					

Complete Breakup of the Price per bus

- a. Basic Price
- b. Excise Duty @ ___%
- c. Sales Tax @ ___%
- d. Transit Insurance
- e. Temporary Registration
- f. Octroi (if any)
- g. Toll Tax (if any)
- h. Other Levies (If any)
- i. Transit cost
- j. Any other cost/Taxes (if any).
- k. Total Landed cost per bus

It is hereby certified that we have understood the instructions to the bidders,, terms & conditions given in the RFP documents and have thoroughly examined the specifications given in the documents. We are fully aware of the requirement of buses in accordance with the terms & conditions of the RFP. We agree to abide by all the terms & conditions of the tender if the contract is awarded to us.

We hereby offer to supply the buses according to tender & supply order at the price quoted & agreed and to hold this offer open for acceptance for a period of 6 month from the date of opening of Financial Bid of tender.

Note:

1. Bidders shall quote Unit Price inclusive of all taxes, charges complete in all respect which also include transportation charges from contractor Manufacturing Unit to destination CTU, workshop Chandigarh.
2. Proof of having deposited Sales Tax, Excise duty, Transit Insurance, En-route expense etc. as per rules enforce be provided.
3. In case of exemption in Excise Duty & Sales Tax etc., the limit shall be indicated clearly.

Signature of the Bidder

Annexure-5

PROFORMA FOR EARNEST MONEY/BID SECURITY

To

Date of Opening _____

Bid No. _____

1. The Bidder shall furnish separate Bid security (hereinafter also referred to as "Earnest Money Deposit" (EMD) of Rs. 8.00 lakhs. (Rupees Eight Lakhs), For Non AC Midi buses as part of his Bid. Each bid security shall be sealed in a separate sealed envelope super scribed "Earnest Money Deposit" for Bid due on _____ upto 15.00 hours.
2. The Earnest Money Demand (EMD) with validity period of at least 45 days beyond the financial bids validity period should be in the form of " Account payee Demand Draft" or Bank Guarantee in favour of Divisional Manager, CTU, & Director Transport, Union Territory, Chandigarh payable / encashable at Chandigarh of any nationalized / Scheduled Commercial Bank, operating in India..
3. Detail of EMD submitted
4. Bank Name _____
5. Bank Guarantee detail (if any) _____
4. Any Bid not accompanied with valid Bid Security / EMD in the acceptable form will be liable to be rejected by the Purchaser considering it as non-responsive.
5. No interest will be payable by the Purchaser on the bid security in any case..
6. The Bid Security is liable to be forfeited if the Bidder withdraws amends, impairs, or derogates from the bid in any respect within the period of validity of its bid. The decision of Purchaser in this respect shall be final and binding.

SIGNATURE OF _____ AUTHORIZED REPRESENTATIVE OF THE BIDDER

ANNEXURE-6
PROFORMA OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT is made on the <Date> between _____ having principle place of business at _____, hereinafter called "the Purchaser" of the one part and M/s. Name of Contractor having its principle place of business at hereinafter called "the Contractor" of the other part.

WHEREAS the Purchaser is desirous that certain Goods and Services should be provided by the Contractor, viz. Supply, Testing & Commissioning of Buses and their maintenance under prescribed warranty period of two years and has accepted the Bid submitted by the Contractor for these goods and services.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this agreement words and expression shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents as well as all the terms and conditions of _____'s RFP no. _____ by & the Contractor's bid no. Dated shall be deemed to form and be read and constructed as part of this Agreement, viz:
 - Instructions to Bidders :
 - General Conditions of Contract
 - Technical Specifications
 - Prices Schedules as submitted by Contractor/Bidder along with their Bid
 - Contractor Bid No..... dated _____
 - Letter of Acceptance bearing No. _____ dated and terms and conditions.
 - Amendments in the Contract, if any.
 - Other conditions agreed to any documented as listed below:
 - Bid's Commercial Terms
 - Time Schedule for execution of Contract agreed by Contractor
 - Warranty for the Bus body for 2 years.
 - Any other conditions as applicable

3. In consideration of the payments to be made by the Purchaser to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Purchaser to provide the buses and services and guarantees the same to be in conformity in all respects with the provision of the Contract.
4. The Purchaser hereby covenants to pay the Contractor in consideration of the provision of buses and services and guarantee of the same, the Contract Price at the times and in manner prescribed by the Contract.
5. The Contractor agrees that the essence of Contract and other contractual obligation shall become effective from the date of letter of Acceptance i.e. LOA. The Contractor further agrees that pre estimated damages mentioned in RFP Document, are fair and genuine pre-estimate and not by way of penalty. The Contractor shall not dispute the same in future in any manner.

IN WITNESS WHEREOF the parties here have cause their respective Common Seals to be hereunto affixed (or have hereunto set their respective hands and seals) the day and year first above written.

SIGNED, SEALED AND DELIVERED

By the said

By the said

Name..... Name.....

On behalf of the Purchaser

On behalf of the Contractor

In the presence of

In the presence of

Witness..... Witness

..... Name.....

NameAddress.....

Address.....

ANNEXURE -7

AFFIDAVIT PROFORMA

I _____ S/o _____ R/o _____ do hereby solemnly affirm and declare as under:-

- That deponent has entered an agreement between _____ and M/s _____ for supply of _____ vide Letter of Acceptance No. _____ dt. _____
- That the deponent has not given any commission to any officer/official of the purchaser _____ government or any other agencies against with the procurement process or indulged in any other corrupt or fraudulent practice in securing the Contract.

DEPONENT

Verification:

Verified that the contents of this affidavit are true and correct to the best of my knowledge and belief and nothing has been concealed therein.

Verified at _____ on this _____ day of _____ 2017.

DEPONENT

(Must be attested by Magistrate 1st class)

ANNEXURE-8

PROFORMA FOR PERFORMANCE STATEMENT

Bid No. _____

Date of Opening _____

i) Details may be given for all types of Bus bodies supplied by the Bidder in past Three years.

- Details are to be furnished for the supplies made by the Bidder in previous Three years (ending on 31st March 2016) prior to the year in which the date of Opening of Bid falls.

S. No.	Supplies made to- (Full Address)	Contract No. & Date	Quantity of order-	Date Of Completion of Delivery (As per Contract)	Remarks indicating reasons for Late Delivery if any.	Are the Buses satisfactorily commissioned and giving trouble-free service Attach a Certificate from the Purchaser)

SIGNATURE AND SEAL OF THE BIDDER

ANNEXURE-9

Provisional Acceptance certificate

Name of the Bus

Manufacturer _____ Place of receipt _____

Chassis No. _____ Engine No. _____

T _____ Date of receipt _____

The fully built bus has been received subject to the final inspection to be carried out jointly with the authorized representative of M/s _____ However, the following observations made during the preliminary Inspection at the time of receipt of the above said Bus.1) Shortage of Loose Items, if Any

2) Shortage of Documents, if any:

3) Visual inspection report (The damage/defect/discrepancies occurred during transit of the bus and the same is to be rectified by M/s _____ before offering for final inspection):

(Authorized representatives of C.T.U)

ANNEXURE -10

Final Acceptance Certificate

Ref. No. _____ Dated: _____

Name of the Bus _____

Manufacturer: _____

Place of Final Inspection: _____

Chassis No. _____

Engine No. _____

Type of Bus: _____

Date of receipt _____

The above said fully built bus has been finally accepted subject to the recoveries to be made from M/s _____ against the following defect/deficiencies Carried out jointly with M/s _____

Which have not been removed/attended and the same were observed during the final inspection

S. No.	Defect/Deficiencies	Requirement as per Contract	Amount of Recovery

Inspected by _____

SIGNED, SEALED AND DELIVERD
On behalf of Purchaser

**Singed on behalf of Contractor/
Bidder**

(i) Witness

(i) Witness

(ii) Witness

(ii) Witness

ANNEXURE -11

Format of Letter of Award

[To be issued by the Authority]

To:

Date: _____

Kind Attention: _____

Subject:

Dear Sir,

This is to notify you, M/s _____ that your bid dated _____ submitted pursuant to Request for Proposal for Selection of a Contractor for Design, Manufacture, Supply and Commissioning of Diesel fuelled fully built _____ meter long No. ("**Project**") _____ dated _____, the following price of offered in your Price Bid from amongst the bids submitted and is hereby accepted by the Director Transport, UT, Chandigarh:

[details of the price along with details of the type of Bus it is applicable for]

Pursuant to the provisions of the RFP, you are hereby required to undertake the following:

1. Countersign this Letter of Award at the place indicated below to indicate your acknowledgment of the award of the Project by the Director Transport, UT, Chandigarh to you and return it to the office of Director Transport, UT, Chandigarh within a period of [_____] days from the date of this letter;
2. Submit a bank guarantee in favour of "_____" for an amount of Rs. [_____] Rupees _____ only) in the format specified in Annexure _____ annexed to the Contract, at the time of execution of the Contract on the date specified below.
3. You are required to send your duly authorized representative (with the proof of due authorization in the form of power of attorney or a Board Resolution) to execute the Contract (which shall be executed without any deviation from the Contract at [_____] am/pm] on [_____] at the office of Director Transport, UT, Chandigarh.

Director Transport, UT, Chandigarh looks forward to working with you on this important Project.

Divisional Manager CTU &
Director Transport,
Union Territory,
Chandigarh.

Acknowledged and Accepted by _____

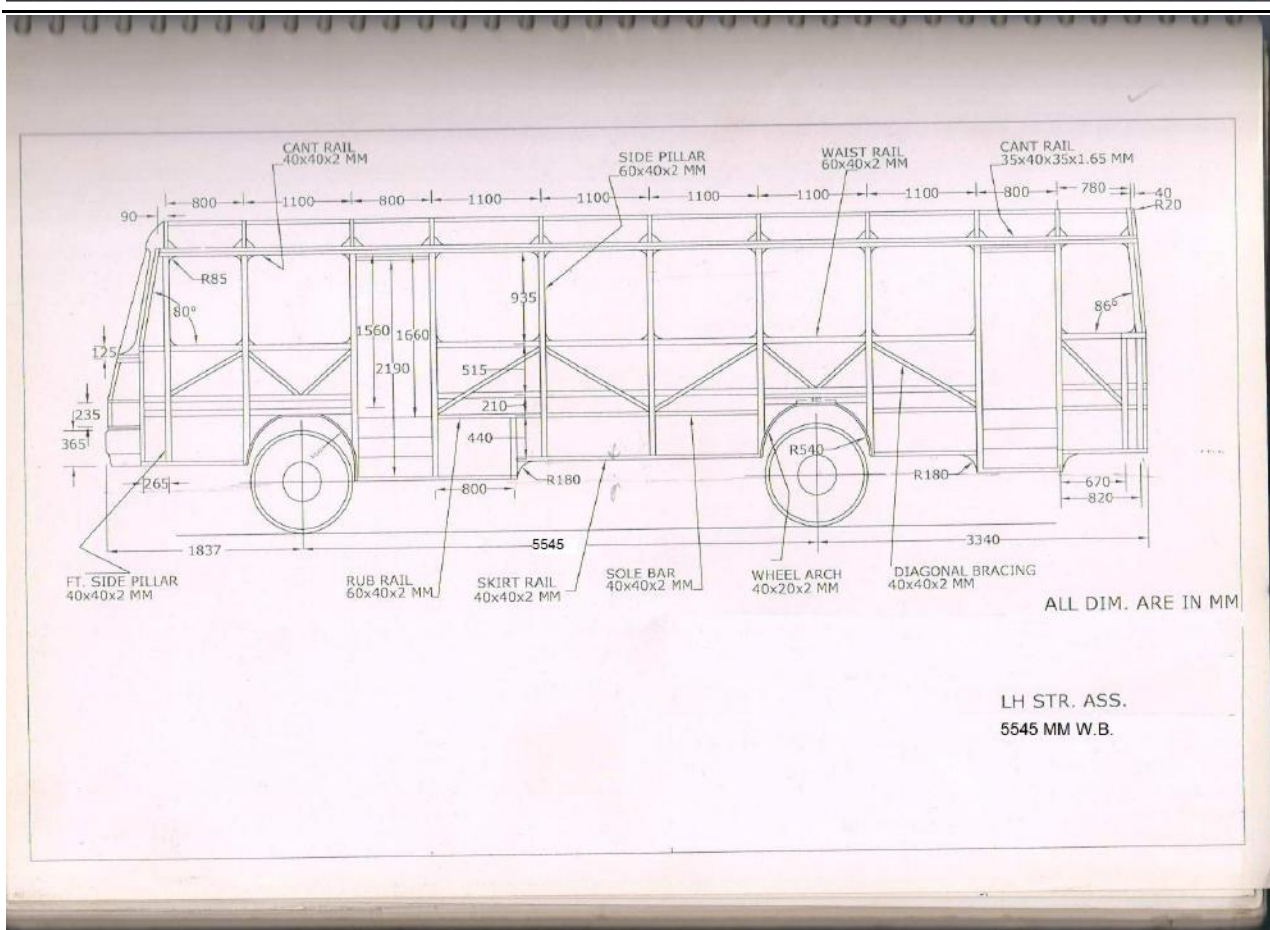
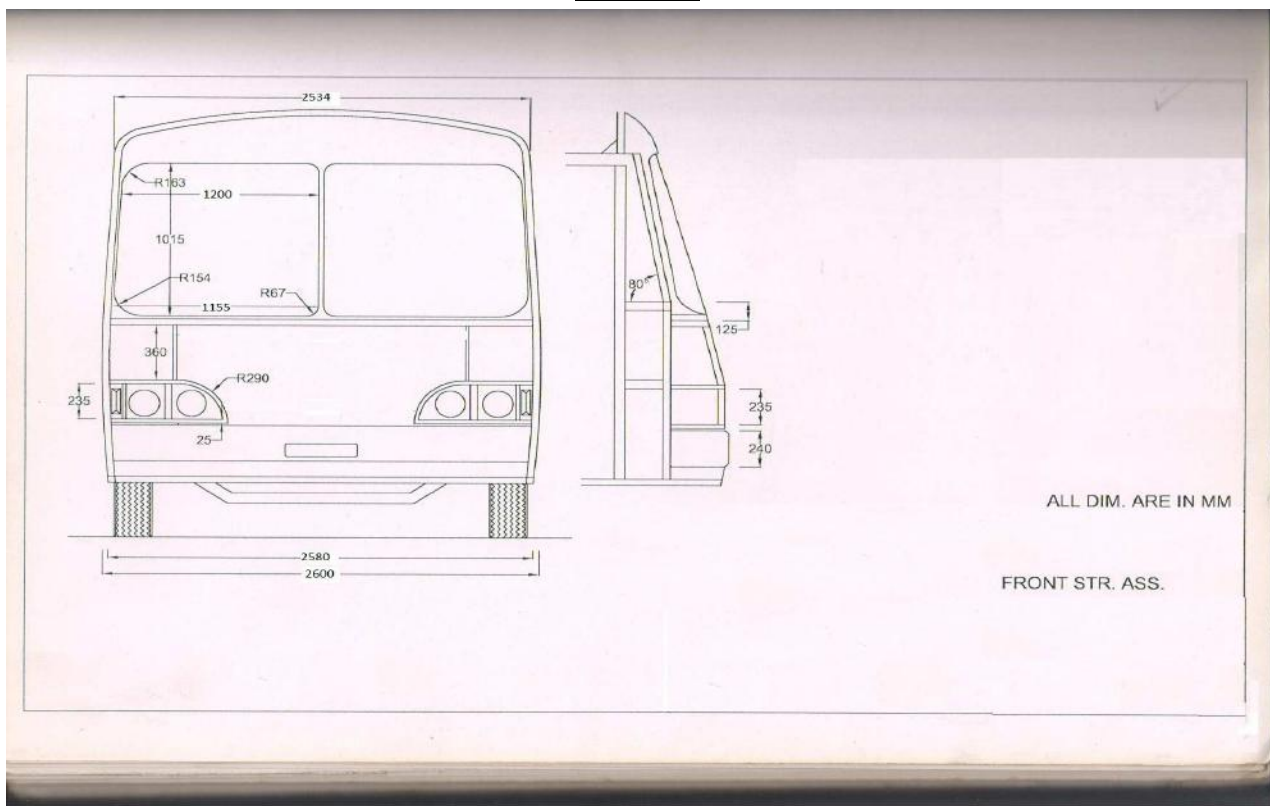
Name of the Authorized Person (person authorized under the Bid process and who has a Power of Attorney as required under the RFP)

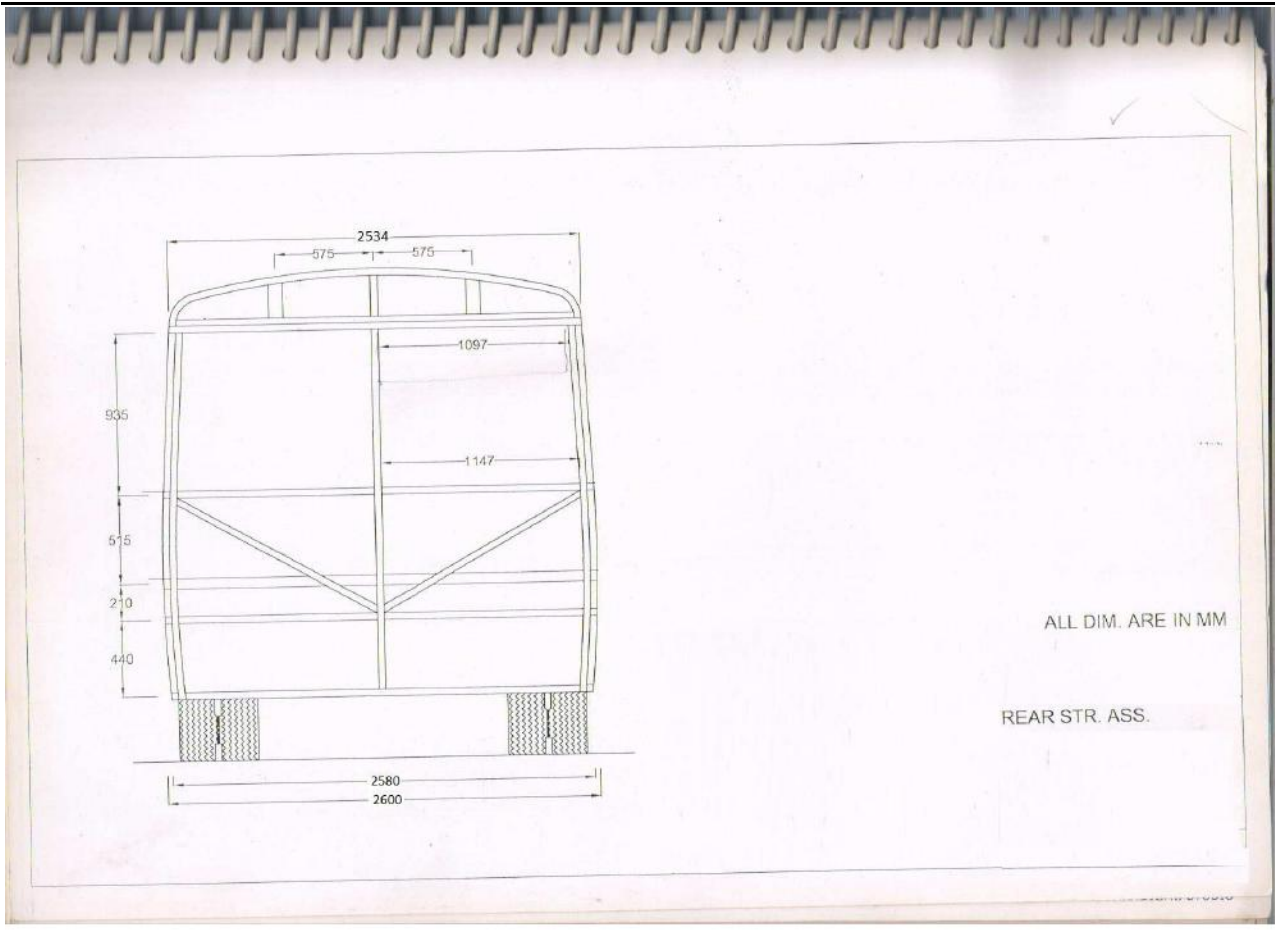
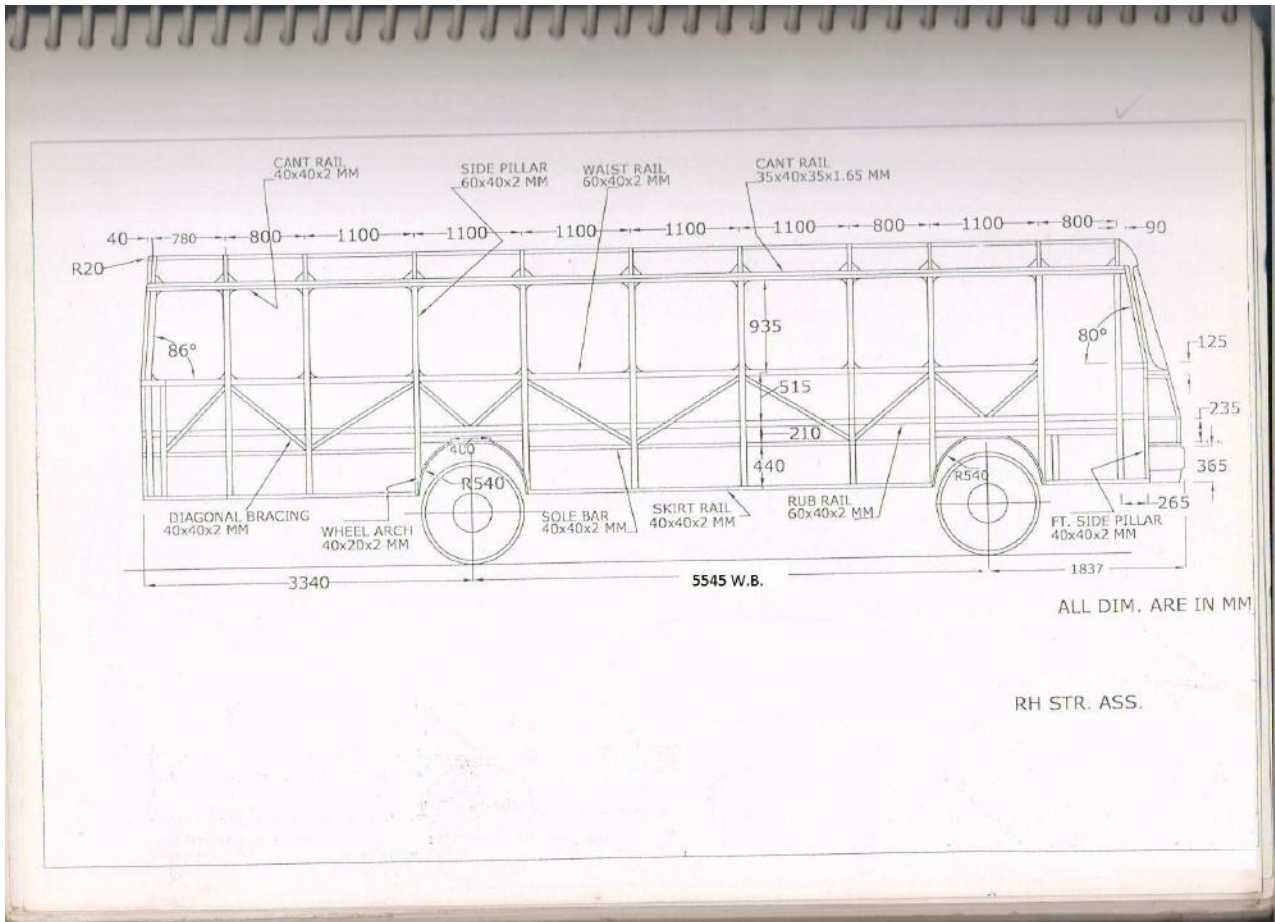
Designation of the Authorized Person

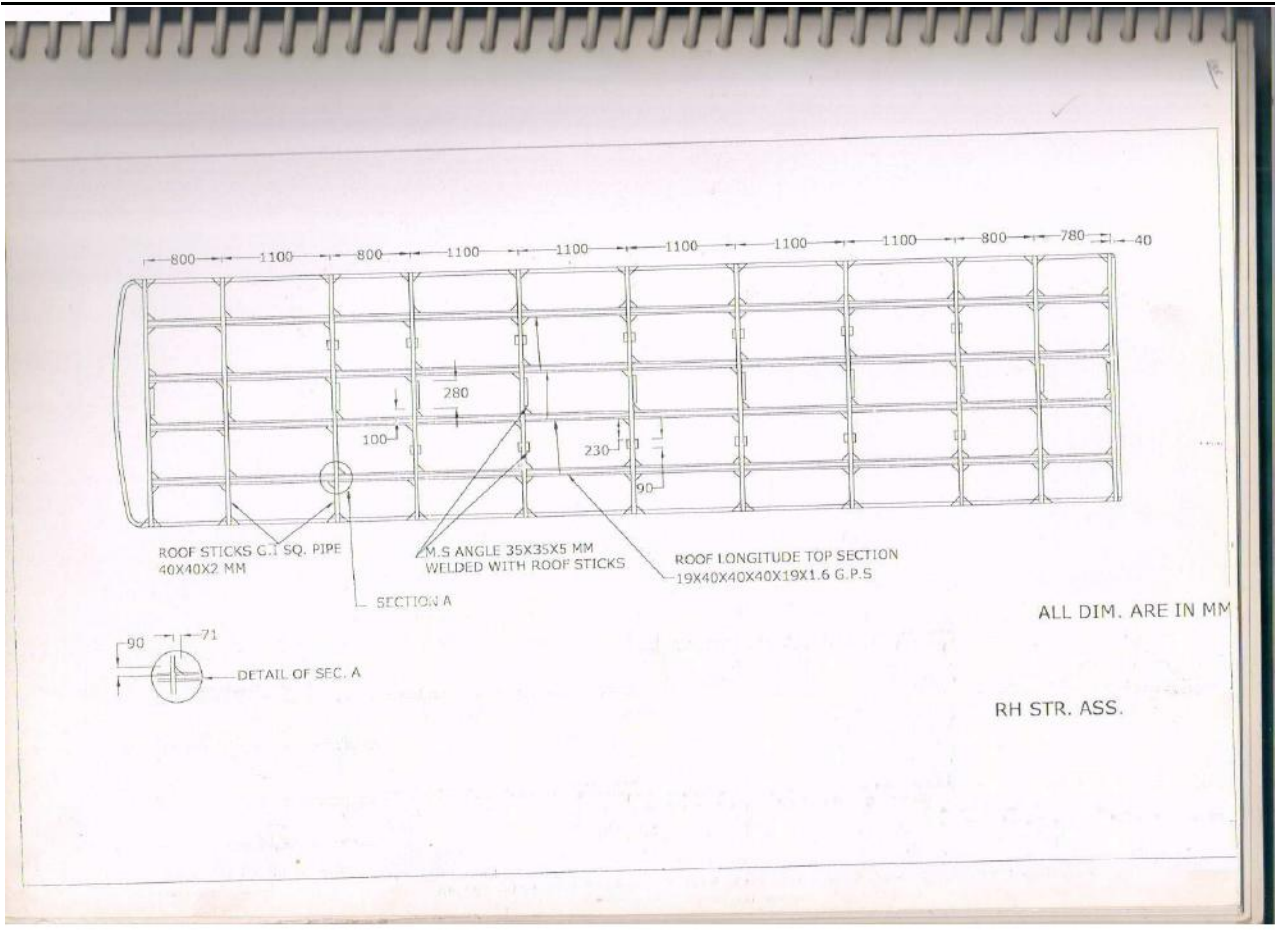
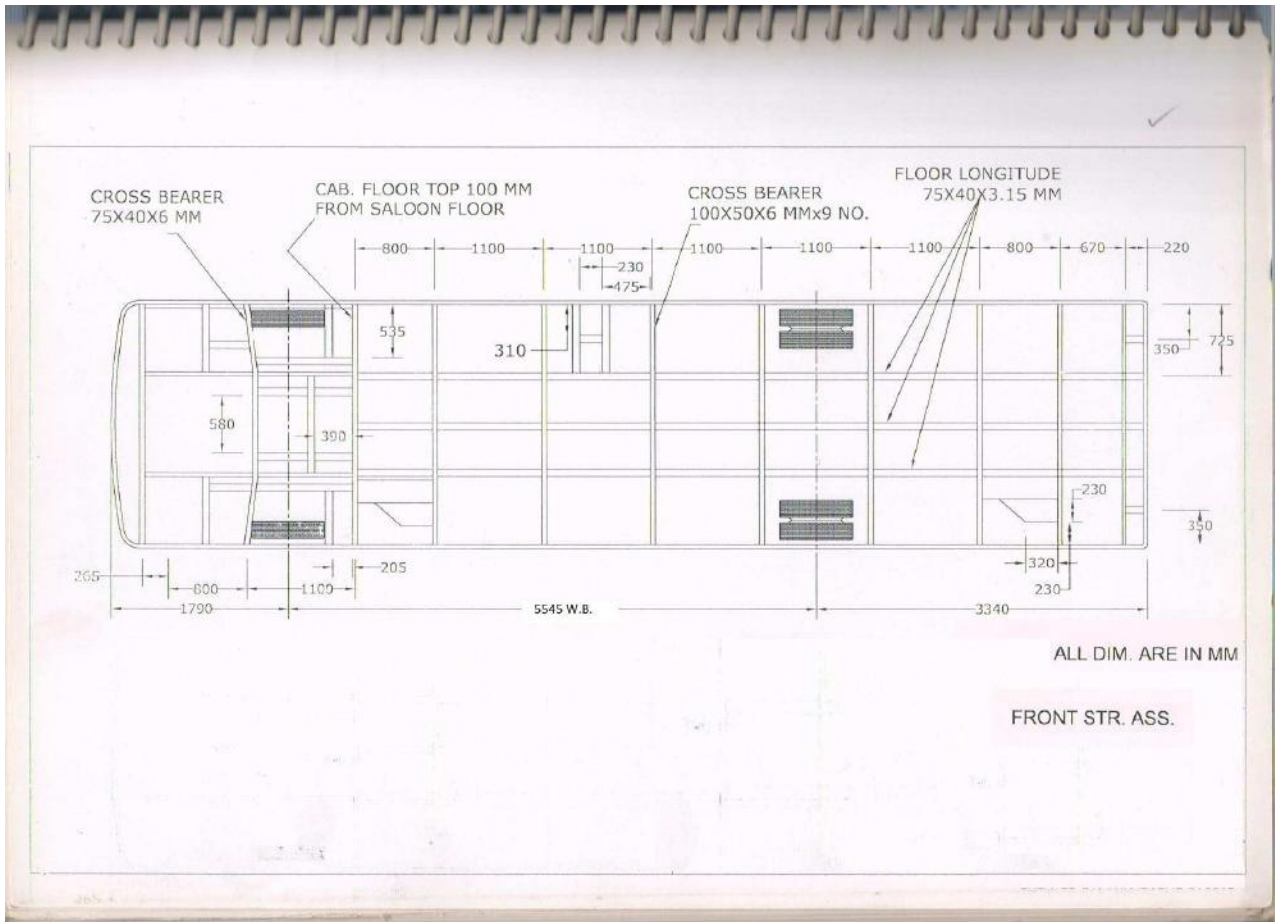
Seal of the Company

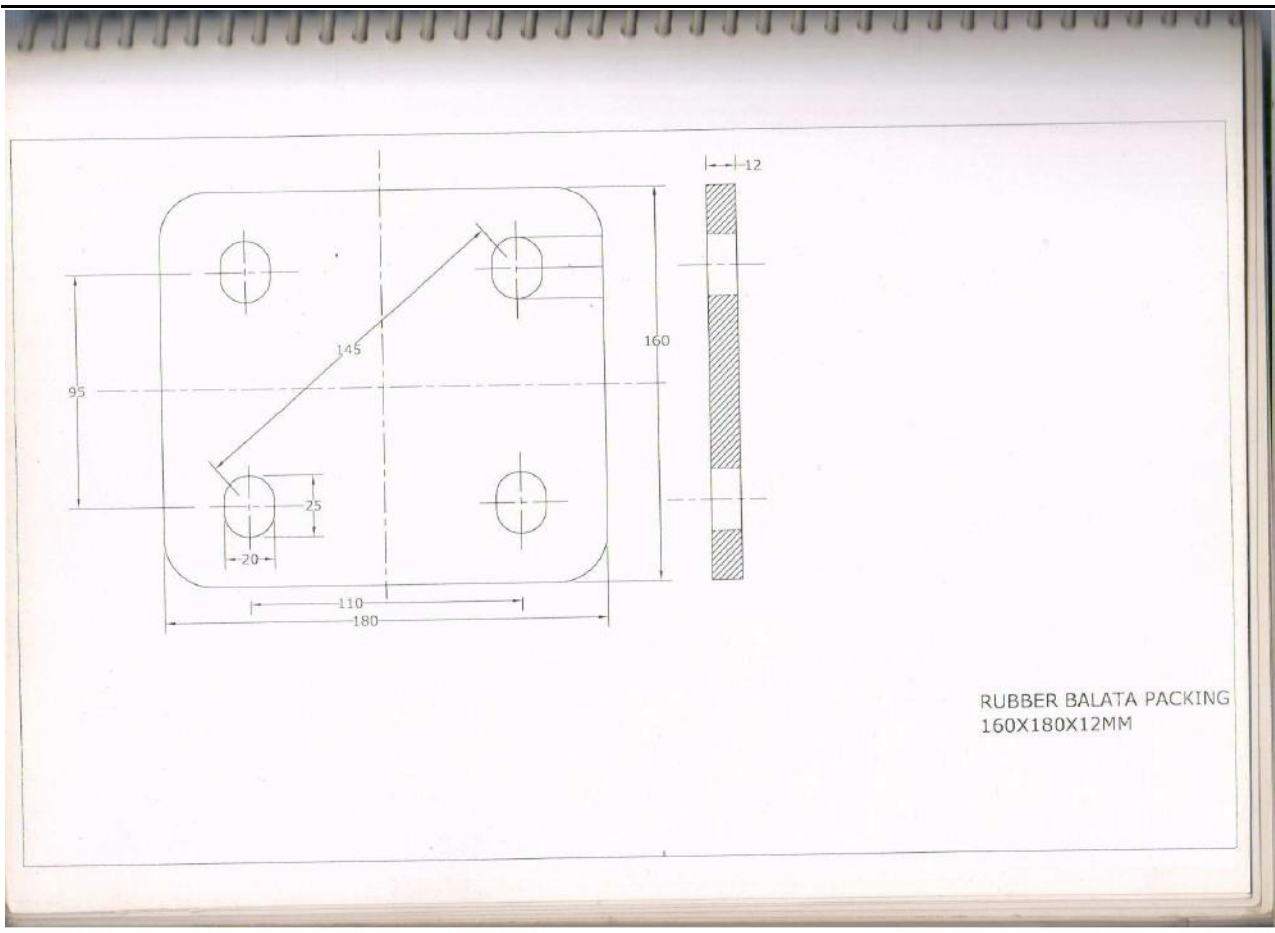
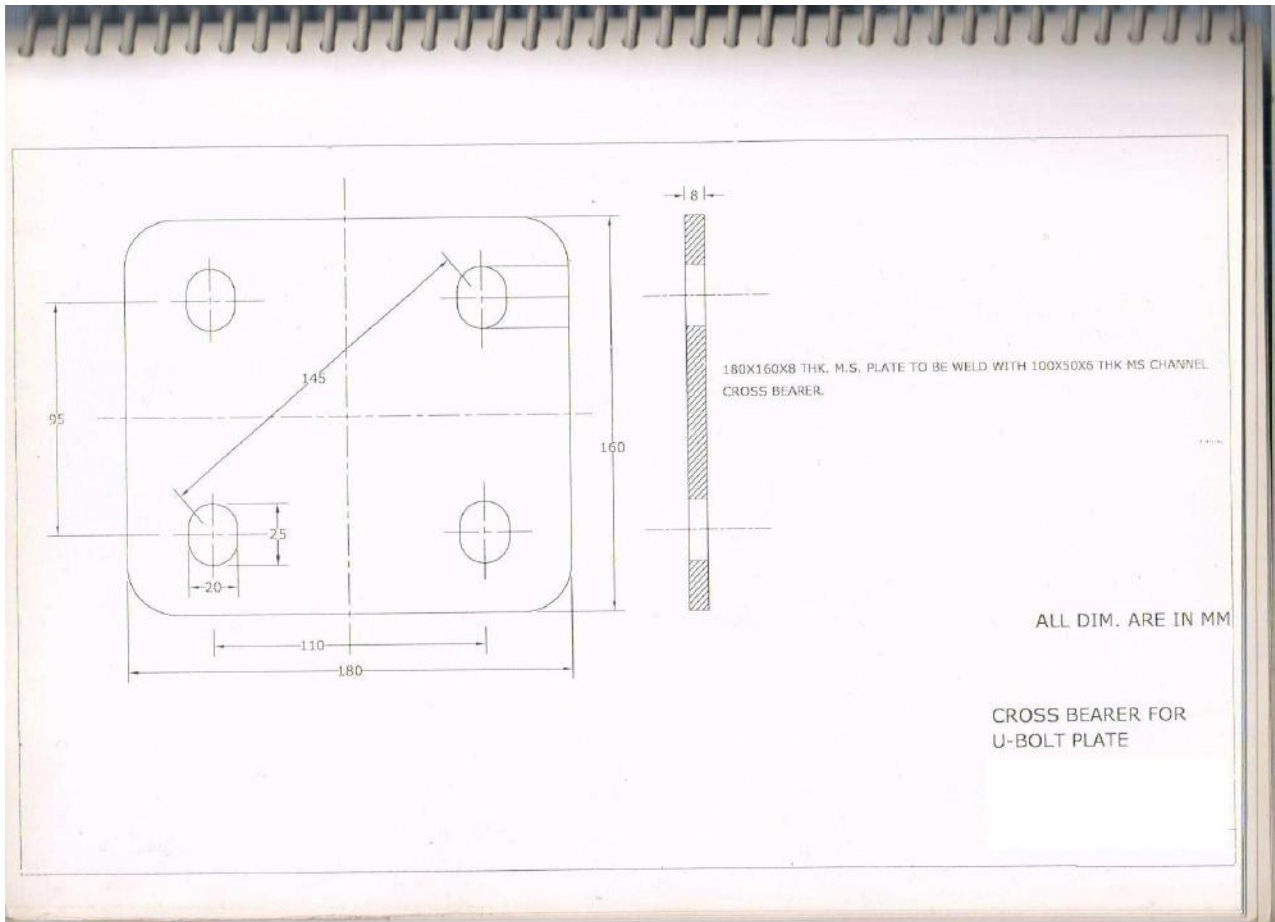
Date:-

Drawings

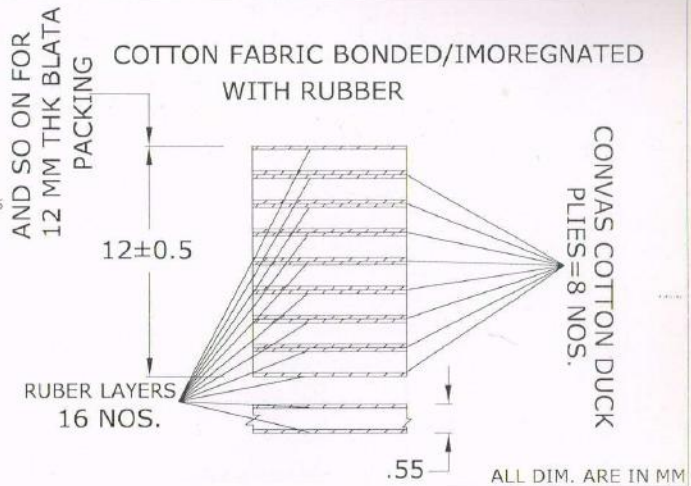




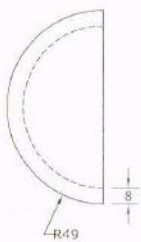




1. PACKING PIECES TO BE NATURAL RUBBER BONDED TO IMPREGNATED COTTON FABRIC (CONVAS DUCK) OF
 - 1.1 WEIGHT : 815GMS. PER SQ. MTR.
 - 1.2 TENSILE STRENGTH :
 - (A) 5.2KG. PER MM WIDTH IN WARP
 - (B) 3.0KG. PER MM IN WEFT
 - 1.3 COMPRESSION RECOVERY : 90% ± 5%
 - 1.4 ADHESION : 3.6KG. PER CM WIDTH
2. SHORE HARDNESS OF THE BONDED/IMPREGNATED PIECE : 90/95
3. THICKNESS OF THE COTTON FABRIC (CONVAS DUCK) AFTER SHOULD BE : 12.0 ± 0.5 MM
4. THICKNESS OF THE RUBBERISED PACKING WITH 10 PILES SHOULD BE : 12.0 ± 0.5 MM
5. CONTENTS OF RUBBER ON BONDED/IMPREGNATED PILES : 800GMS. MINIMUM PER SQ. MTR. ON EACH SURFACE.
6. ALL FOUR SIDES OF THE PACKING SHOULD BE PROPERLY RUBBERISED
7. TOTAL WEIGHT OF PIECE AFTER RUBBERISING : 316GMS. ± 5% FOR 12 M.M THK. BALATA PACKING
 NO. OF CONVAS COTTON DUCK PILES = 10
 NO. OF RUBBER LAYERS = 20

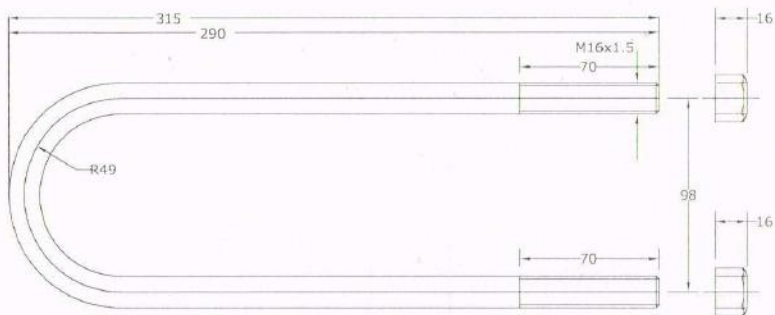


RUBBER BALATA PACKING



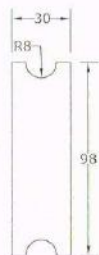
ALL. ALLOY PACKING PIECE FOR 'U' BOLT

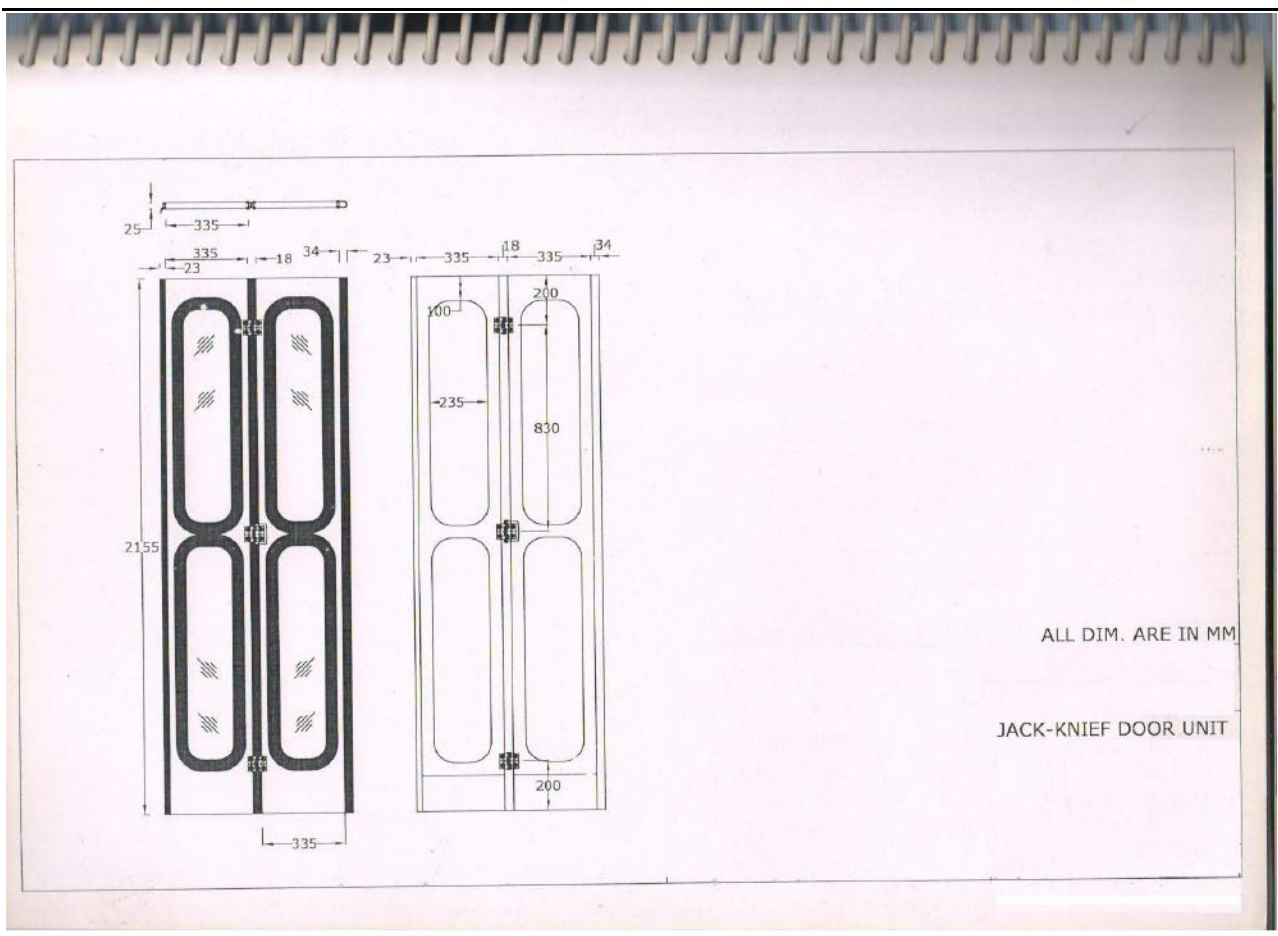
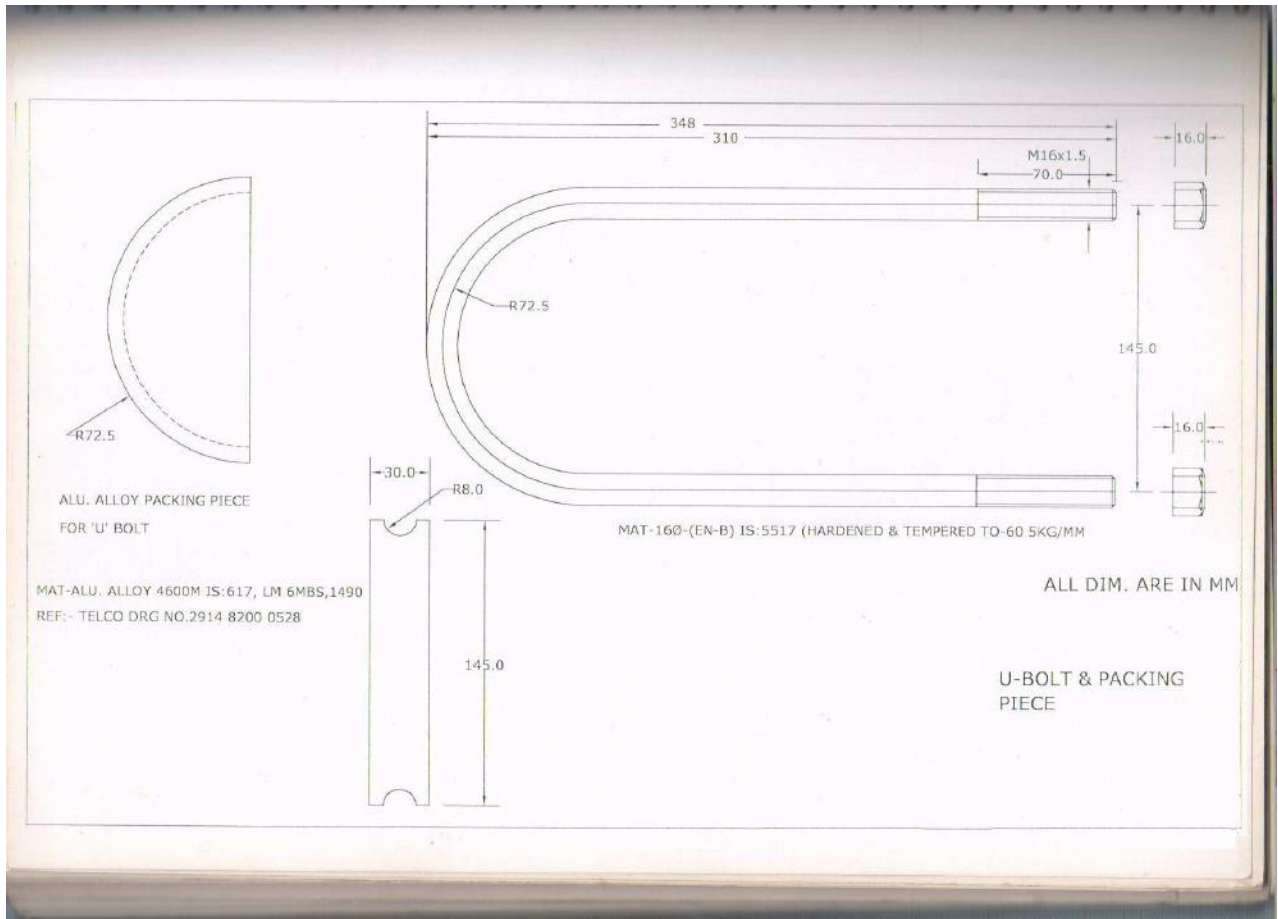
MAT-ALU. ALLOY 4600M IS:617, LM 6MBS,1490
 REF:- TELCO DRG NO.2914.8200.0528

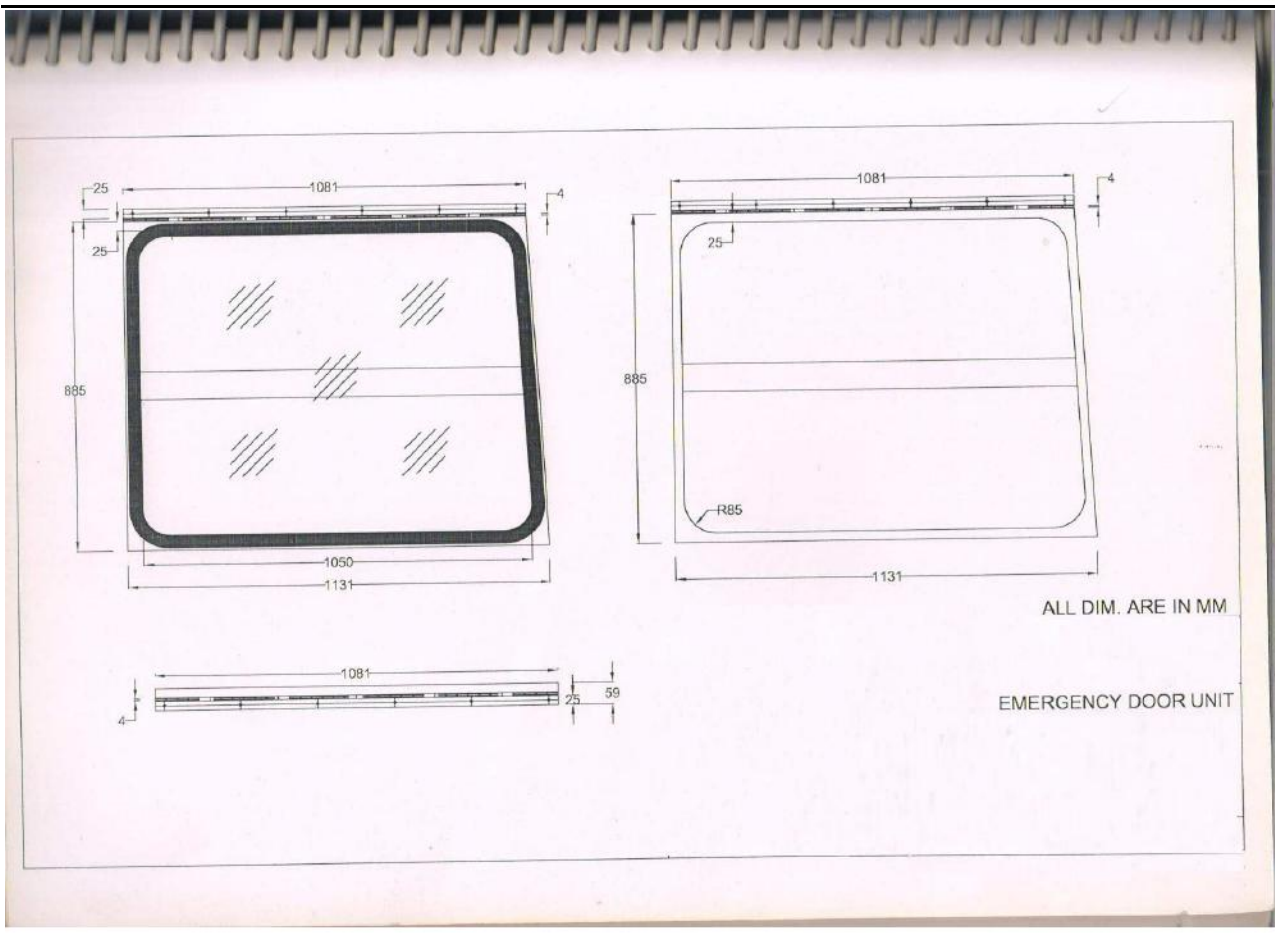
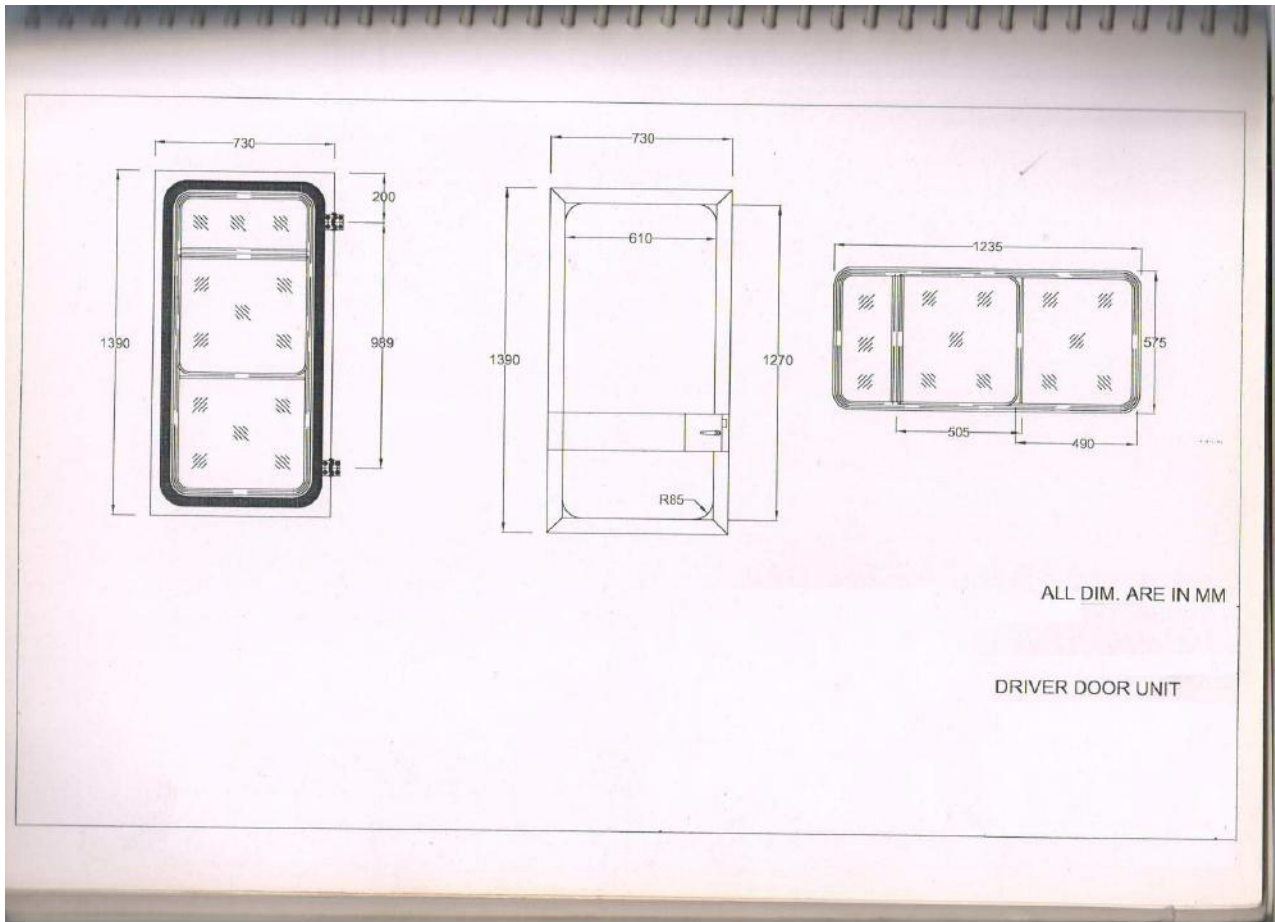


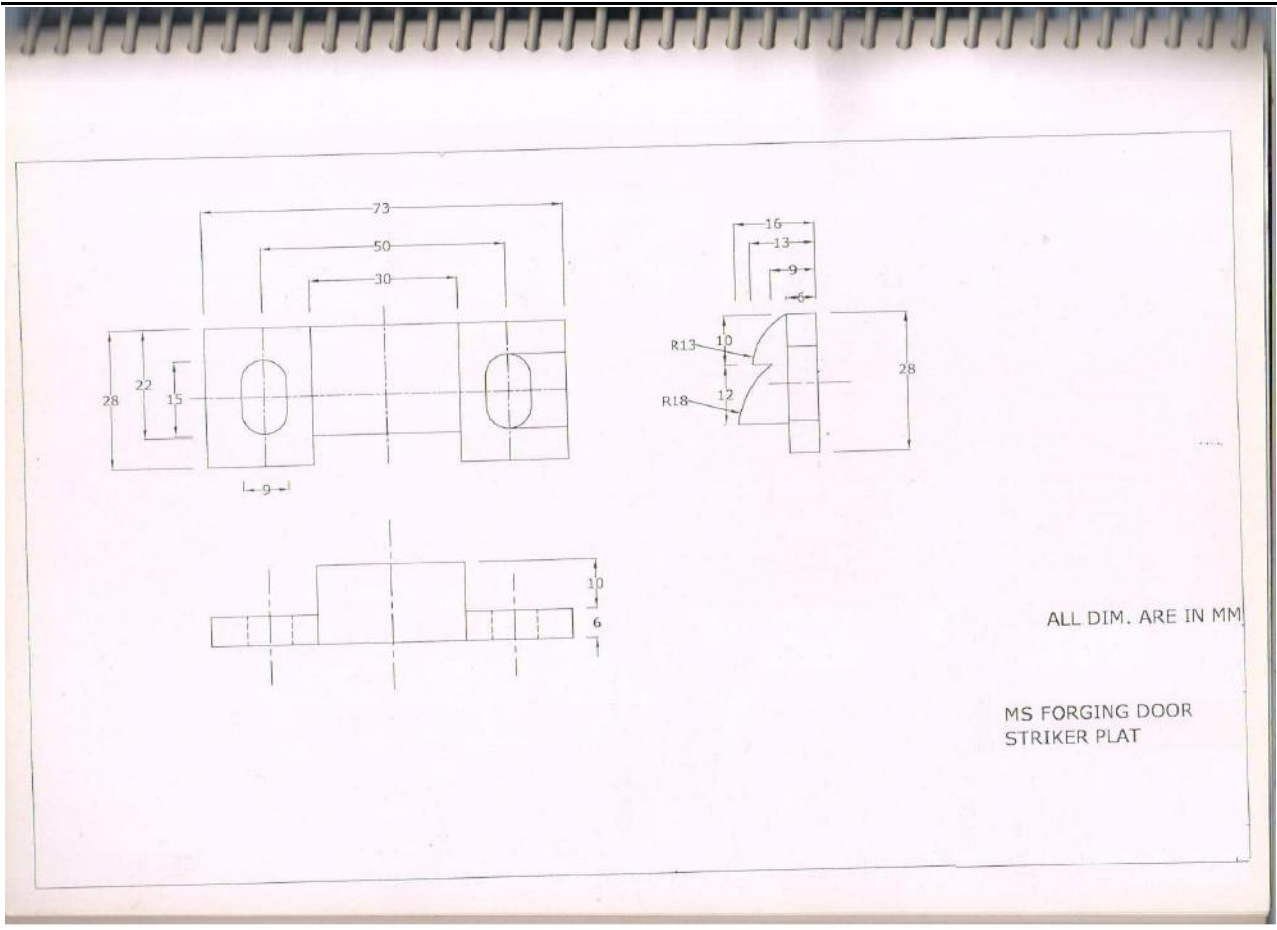
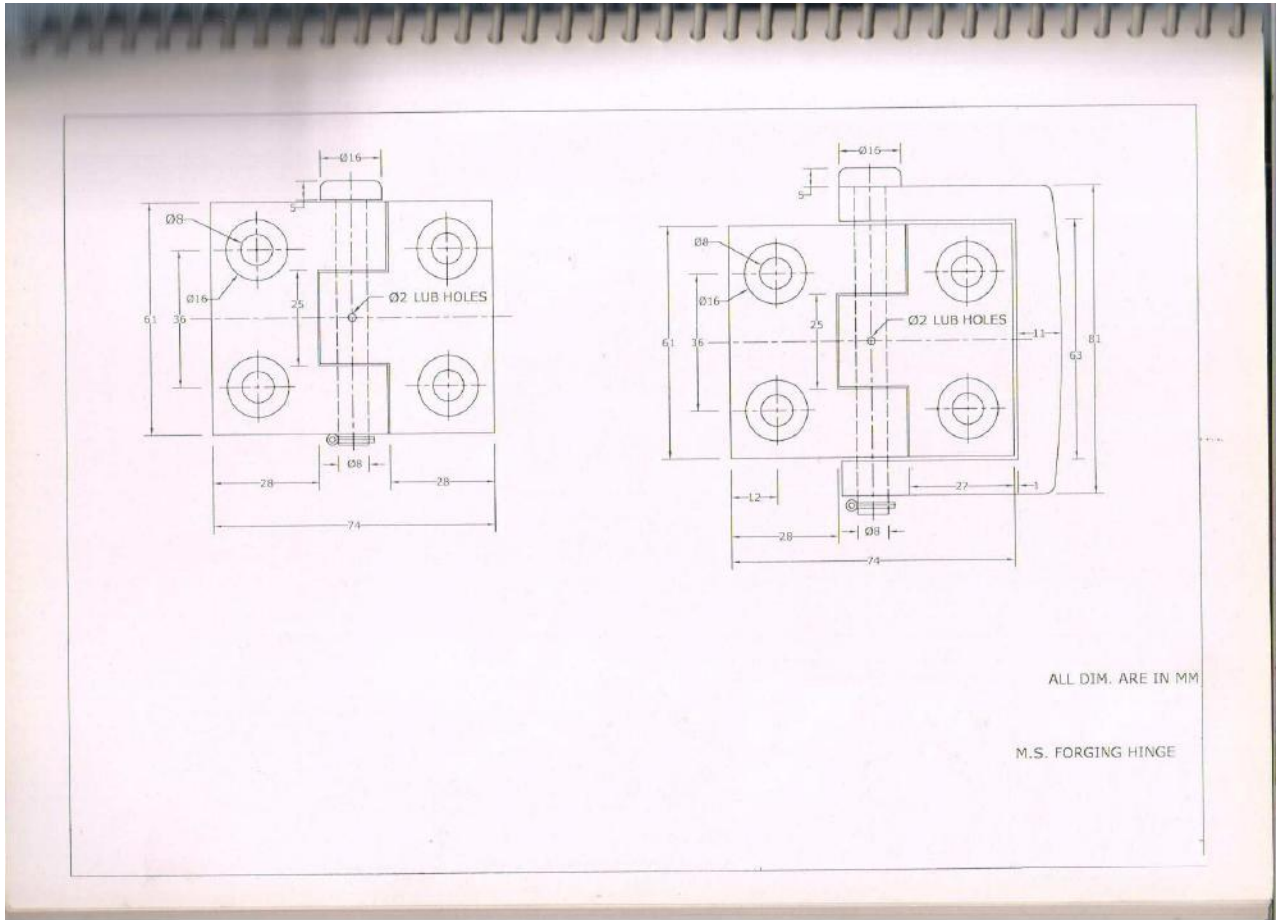
ALL DIM. ARE IN MM

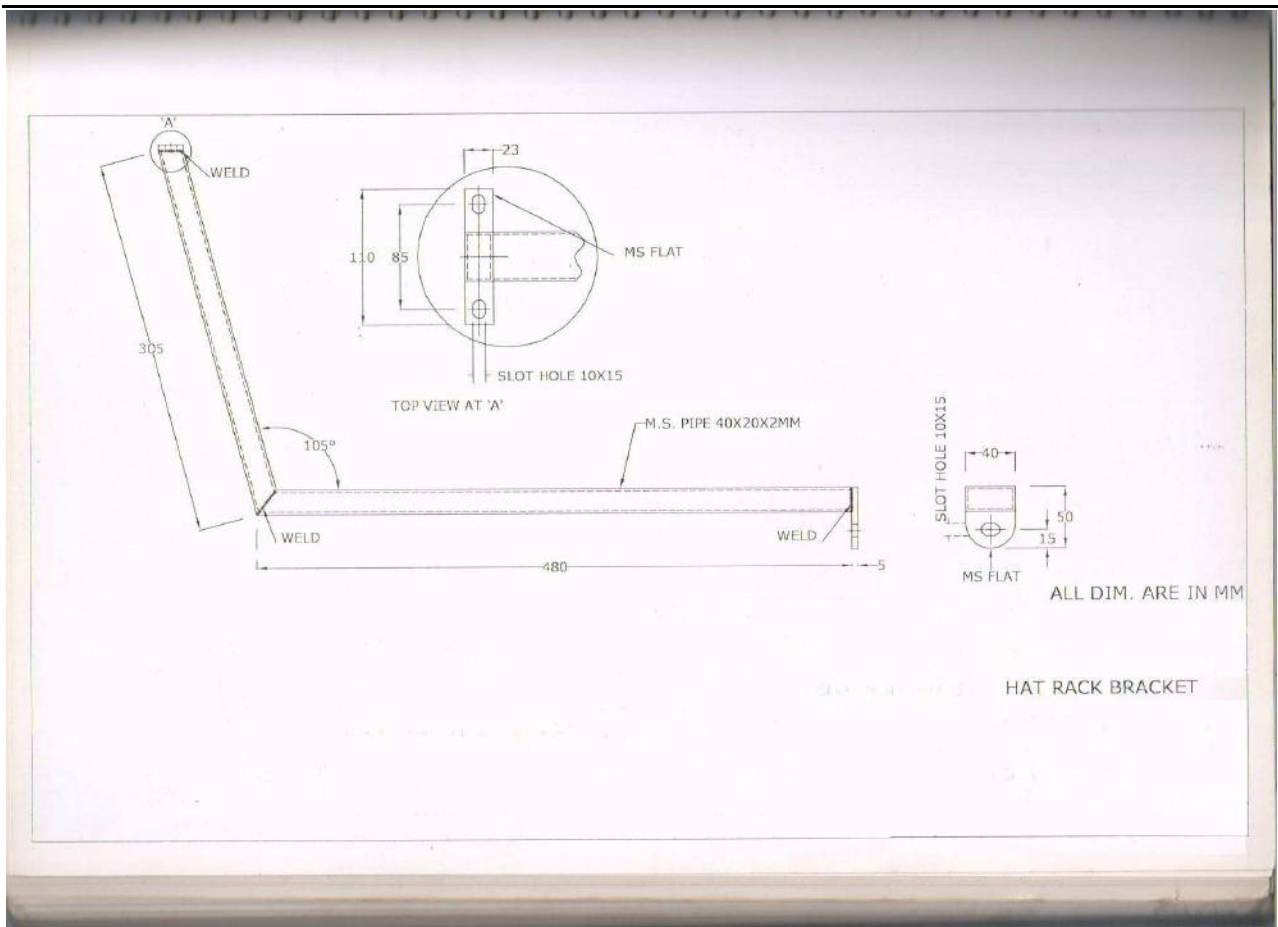
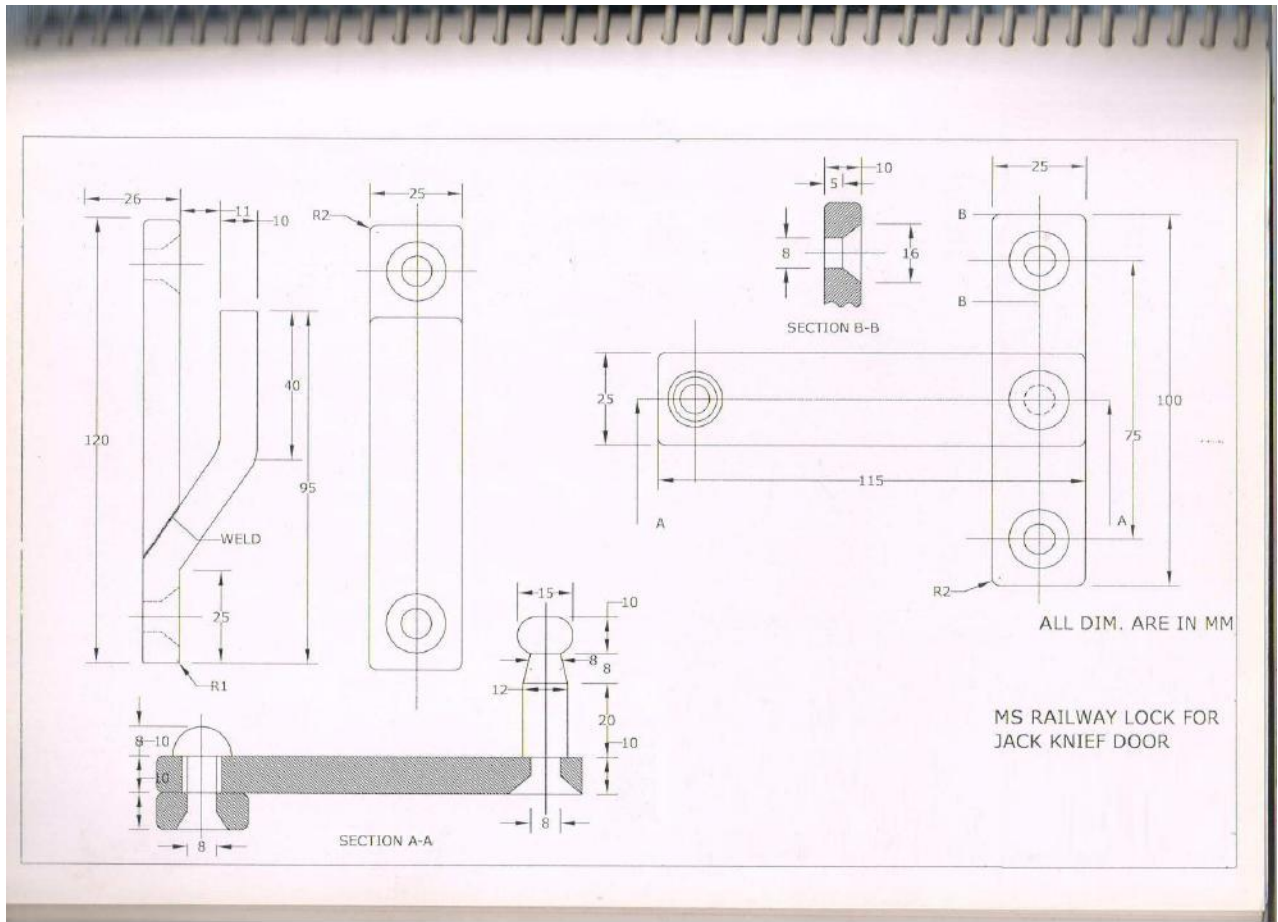
U-BOLT & PACKING PIECE

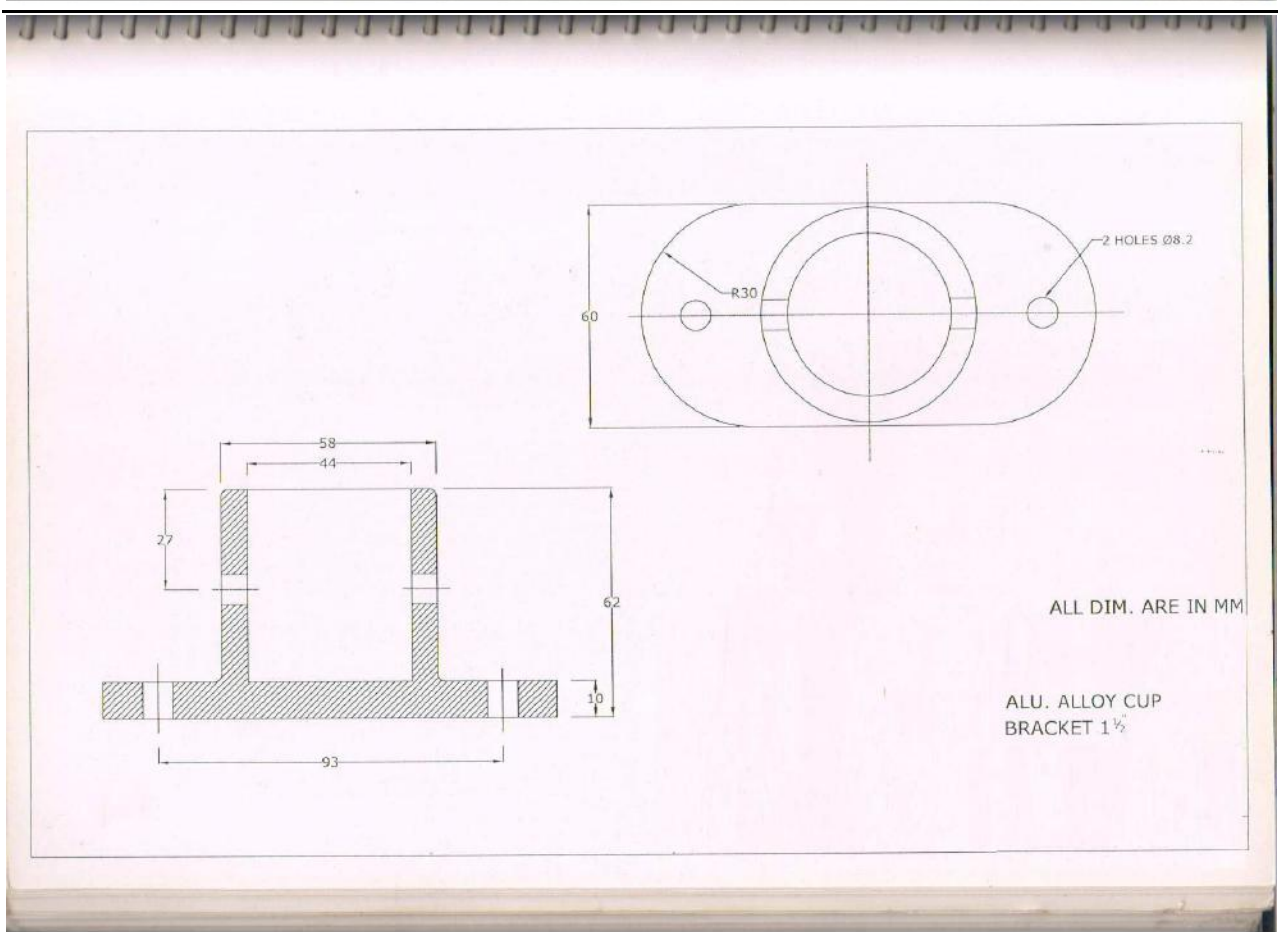
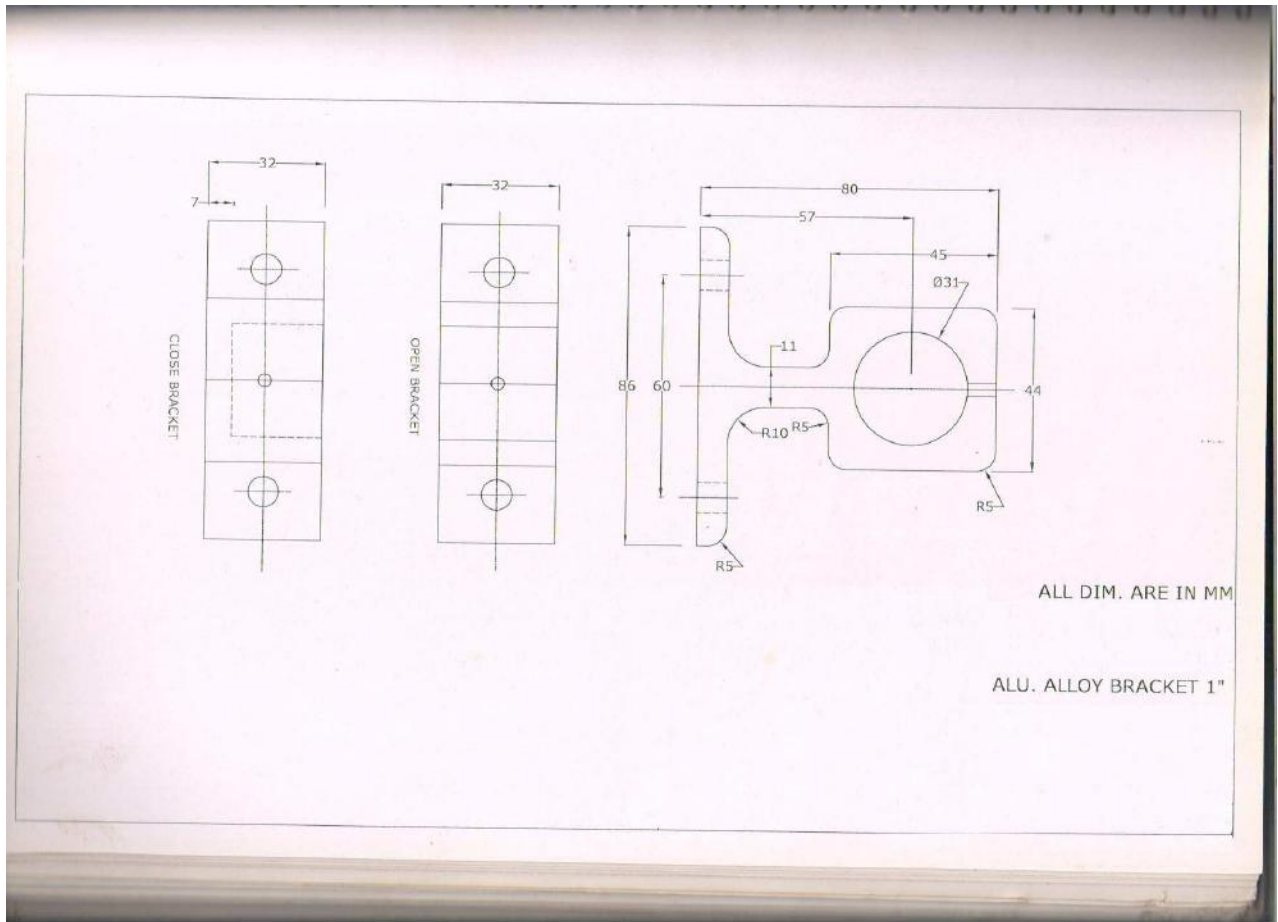


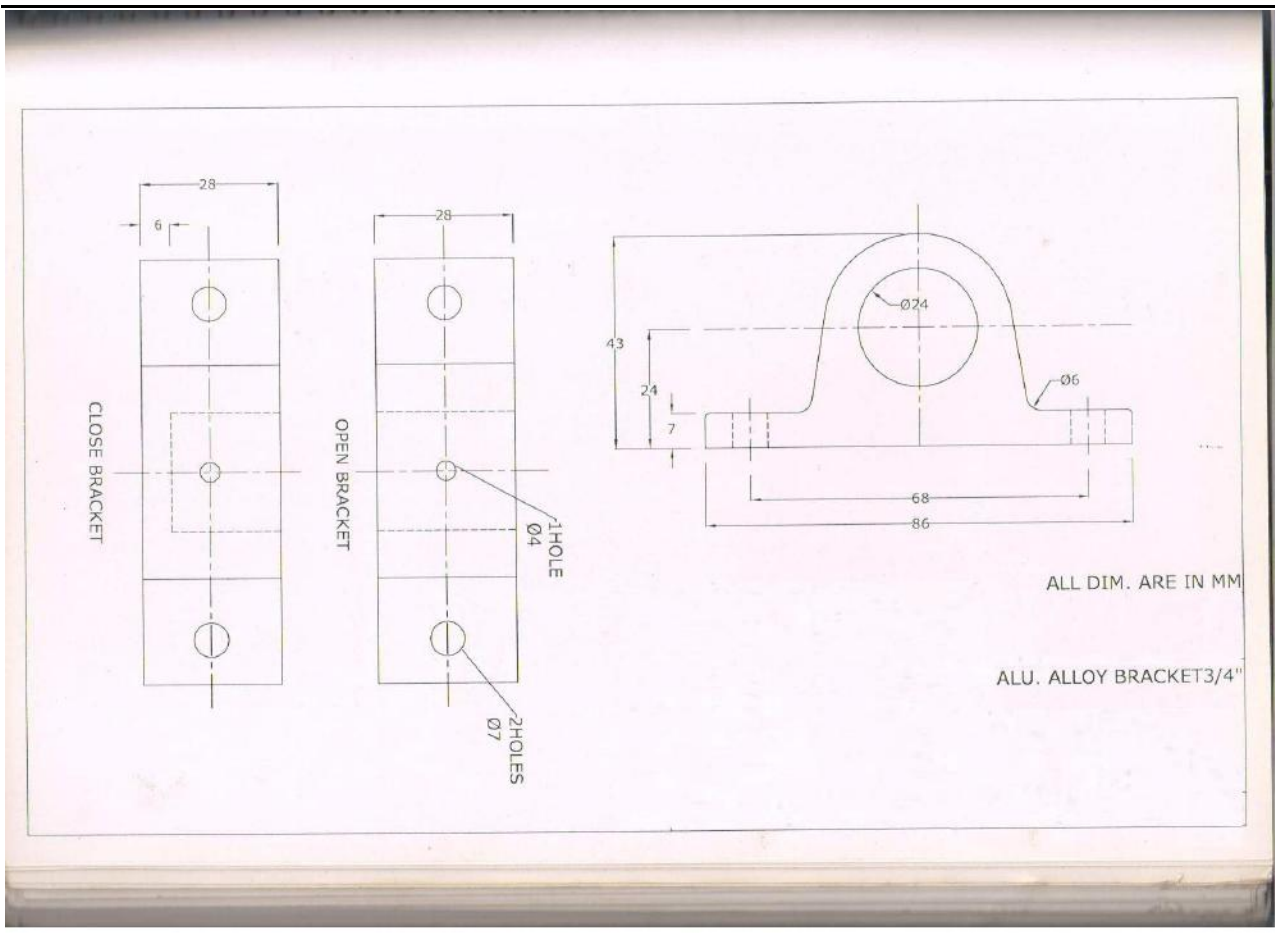
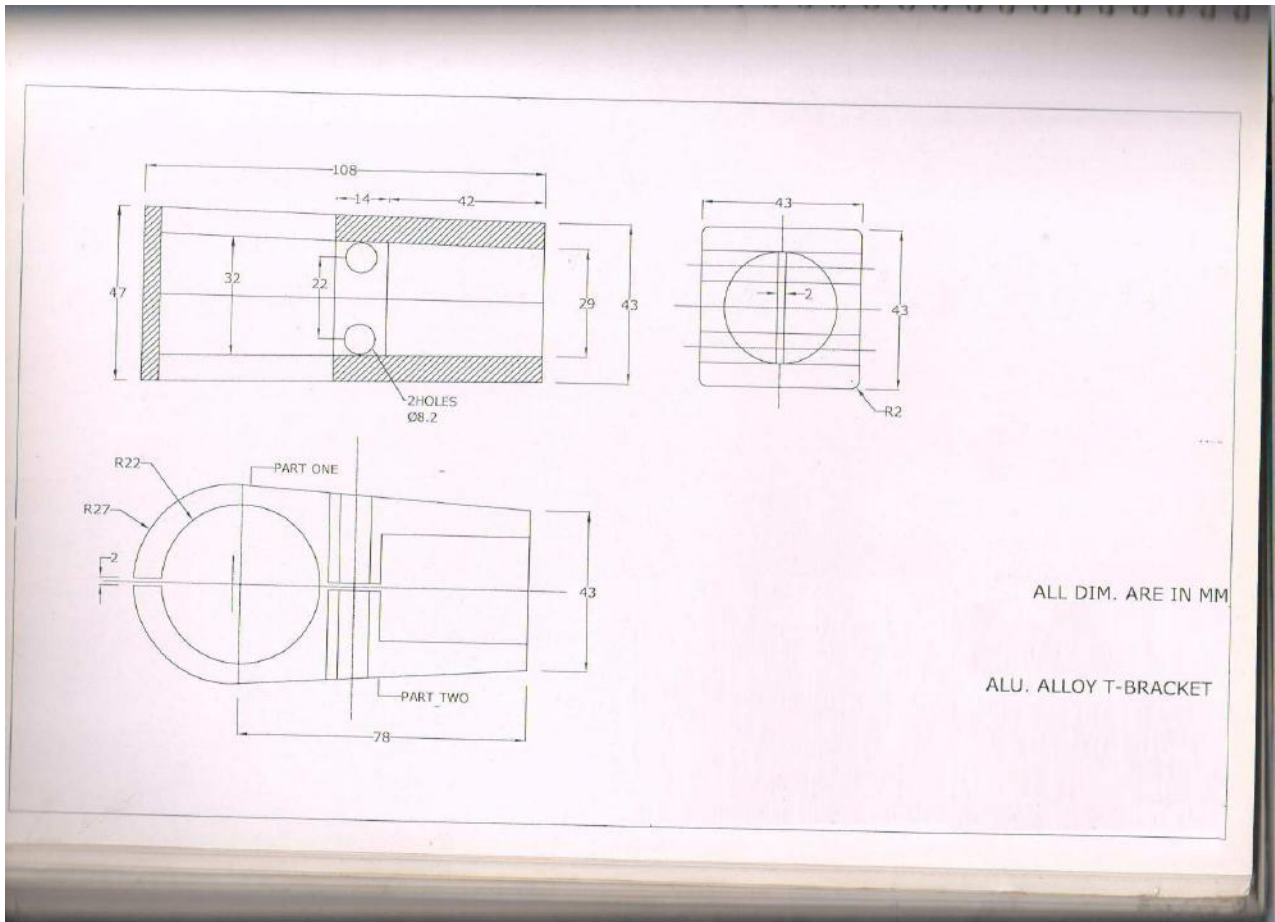


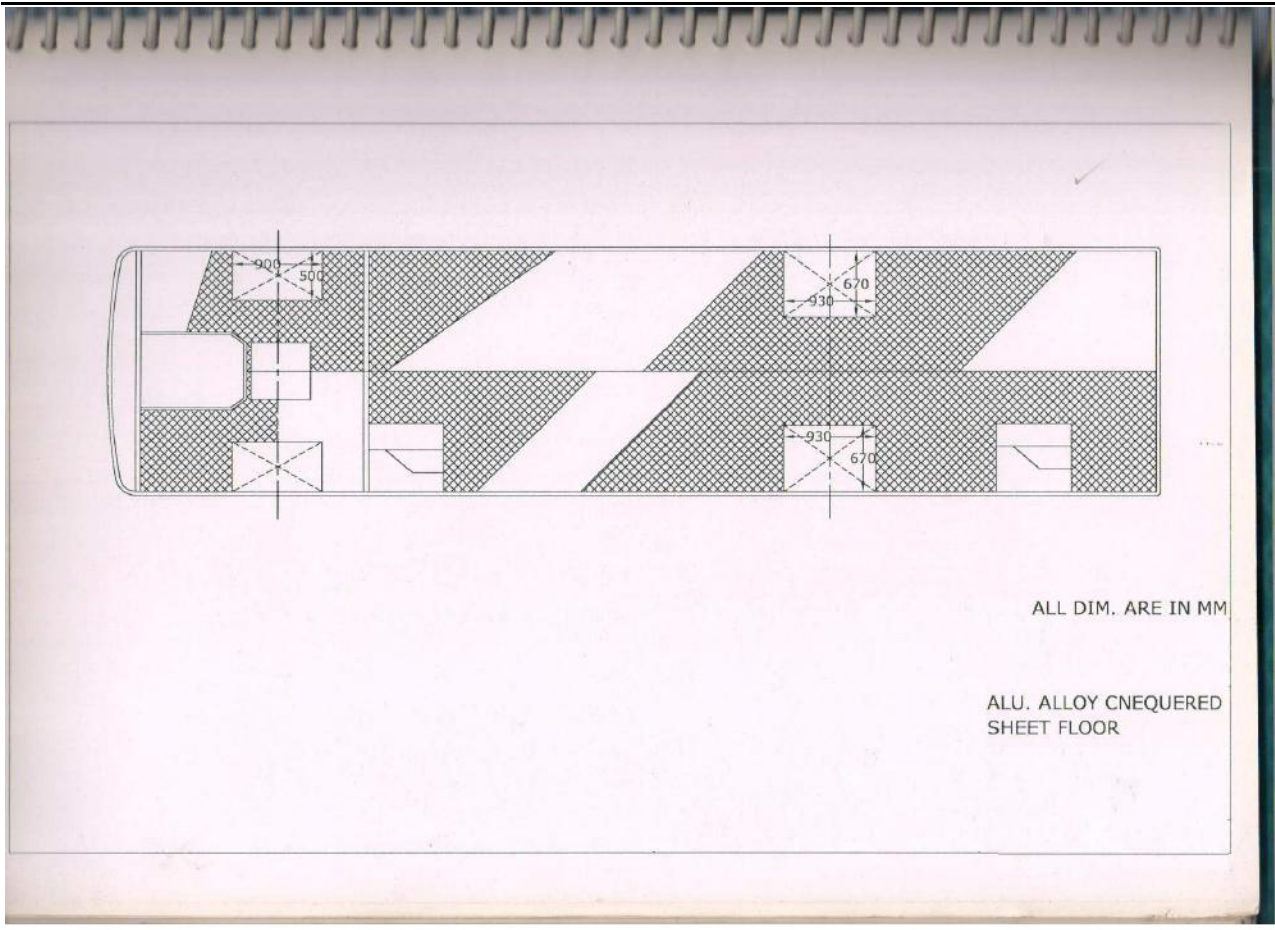
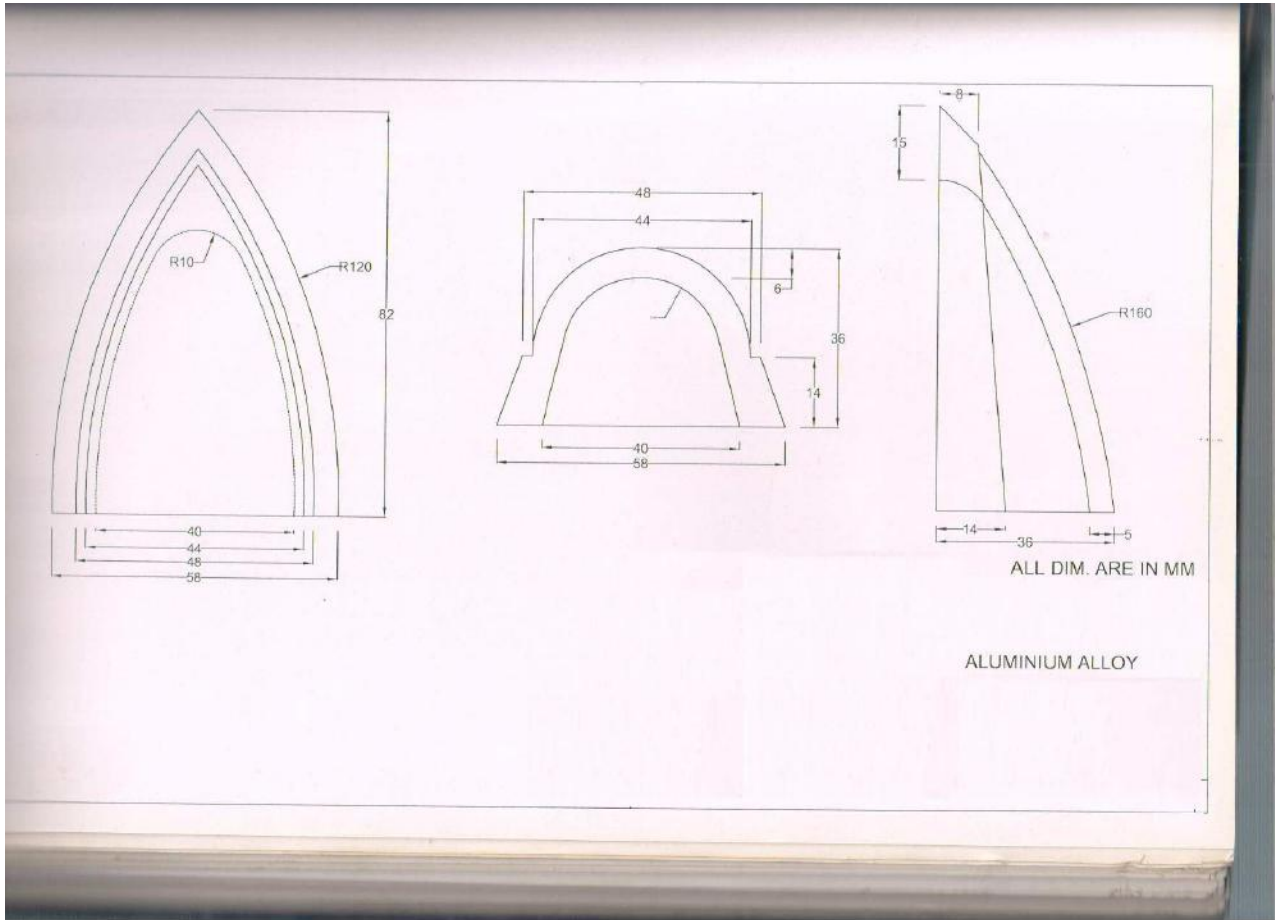


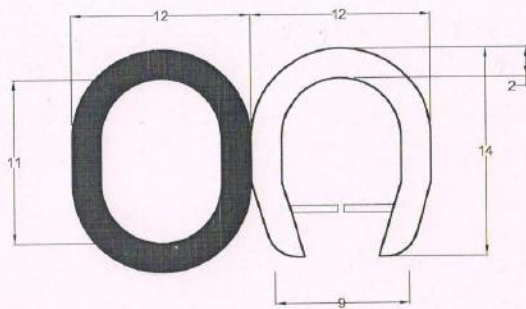






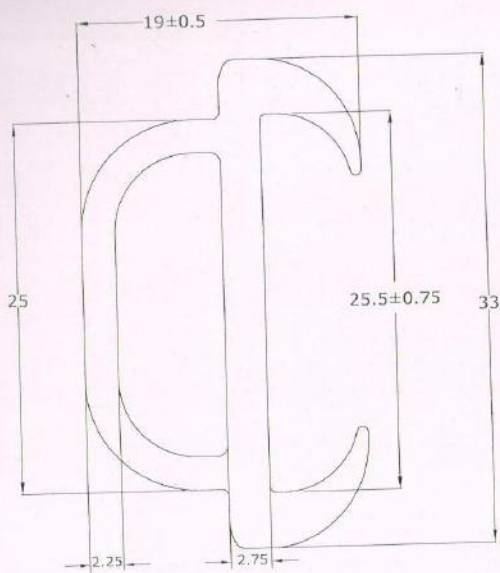






ALL DIM. ARE IN MM

DOOR BEADING

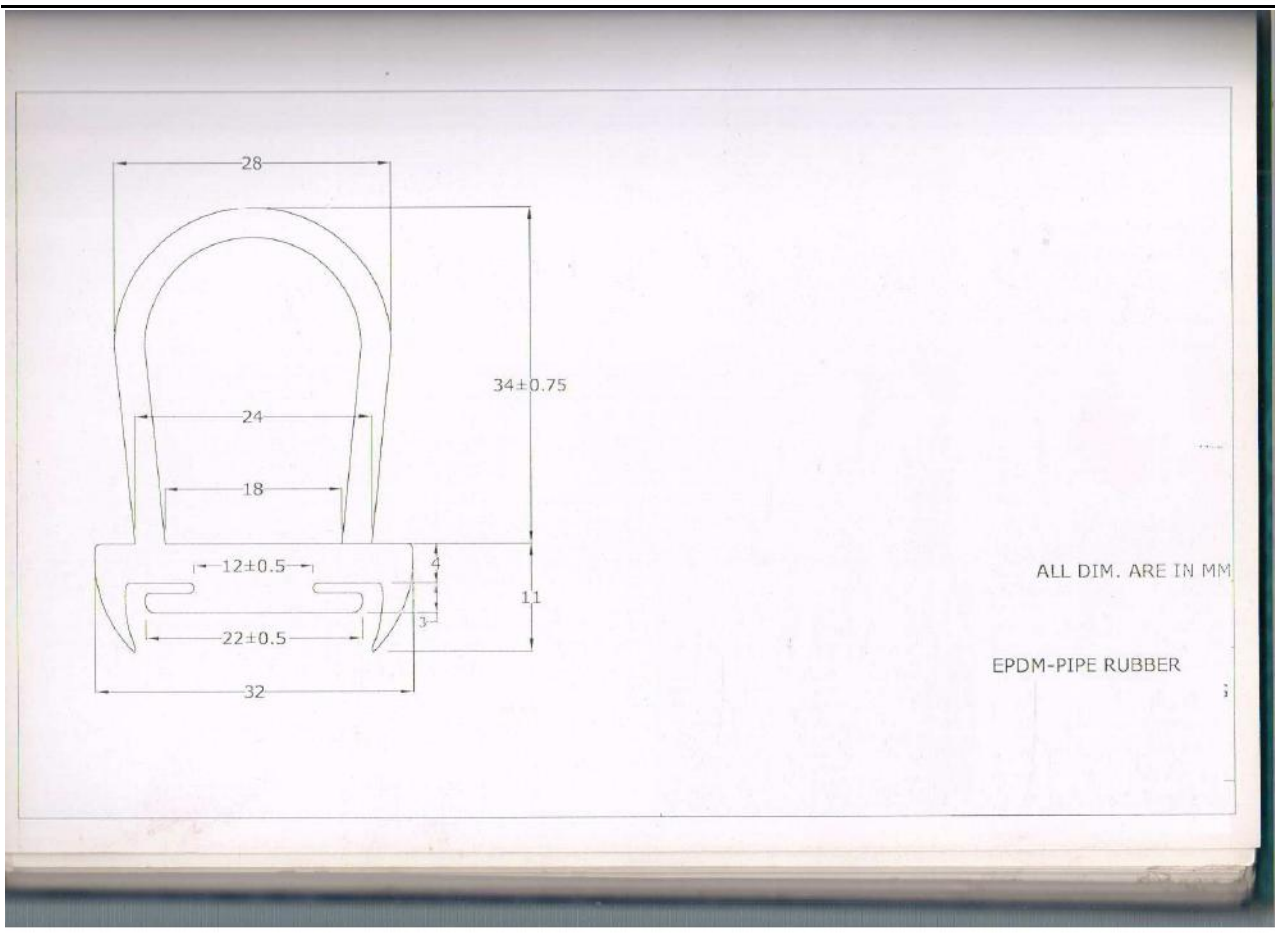
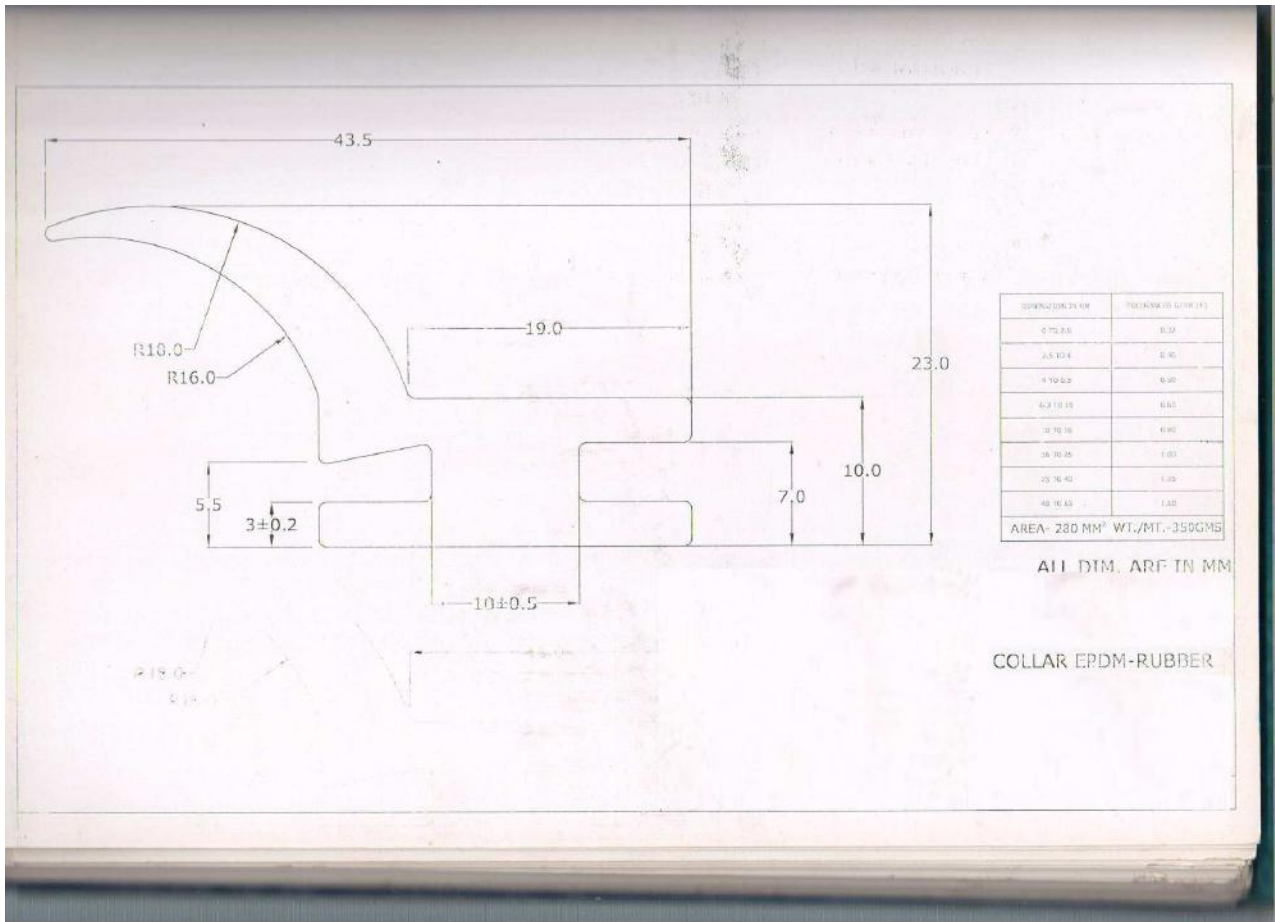


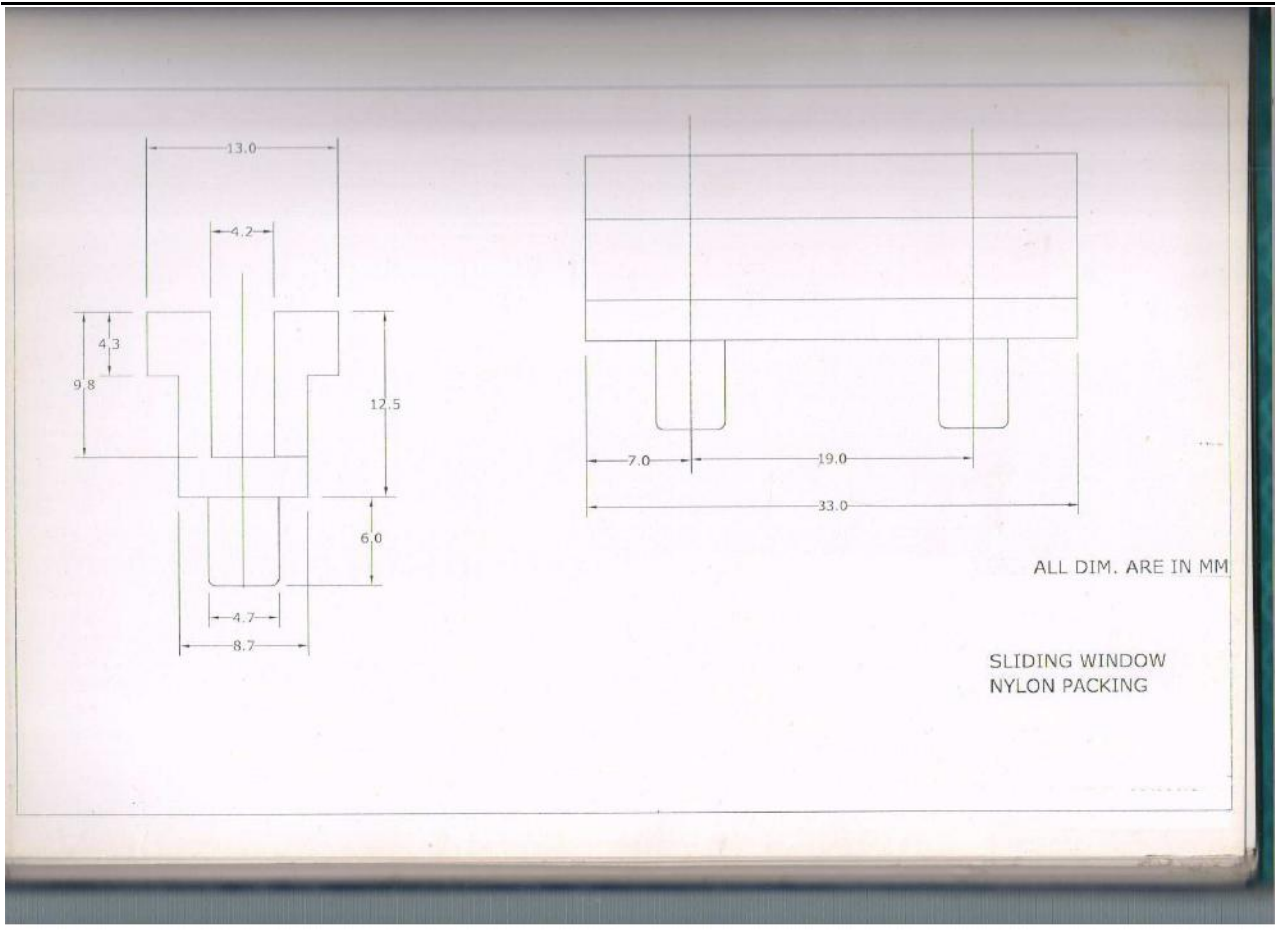
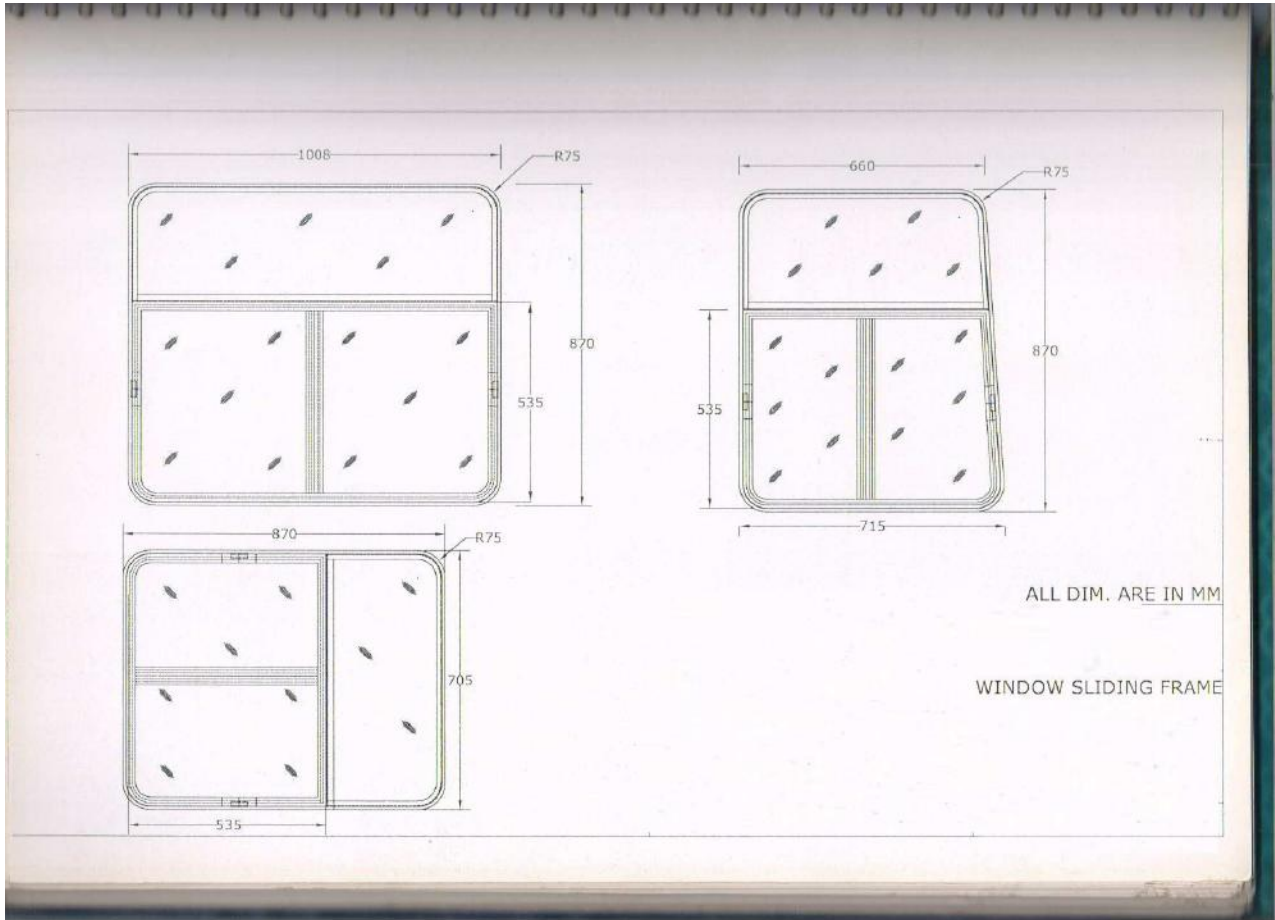
DIMENSIONS IN MM	EQ. FOR 30333 PPM (1)
2 TO 2.5	0.33
2.5 TO 4	1.00
4 TO 6.3	0.58
6.3 TO 10	2.01
10 TO 16	0.88
16 TO 25	0.88
25 TO 40	1.75
40 TO 50	1.00

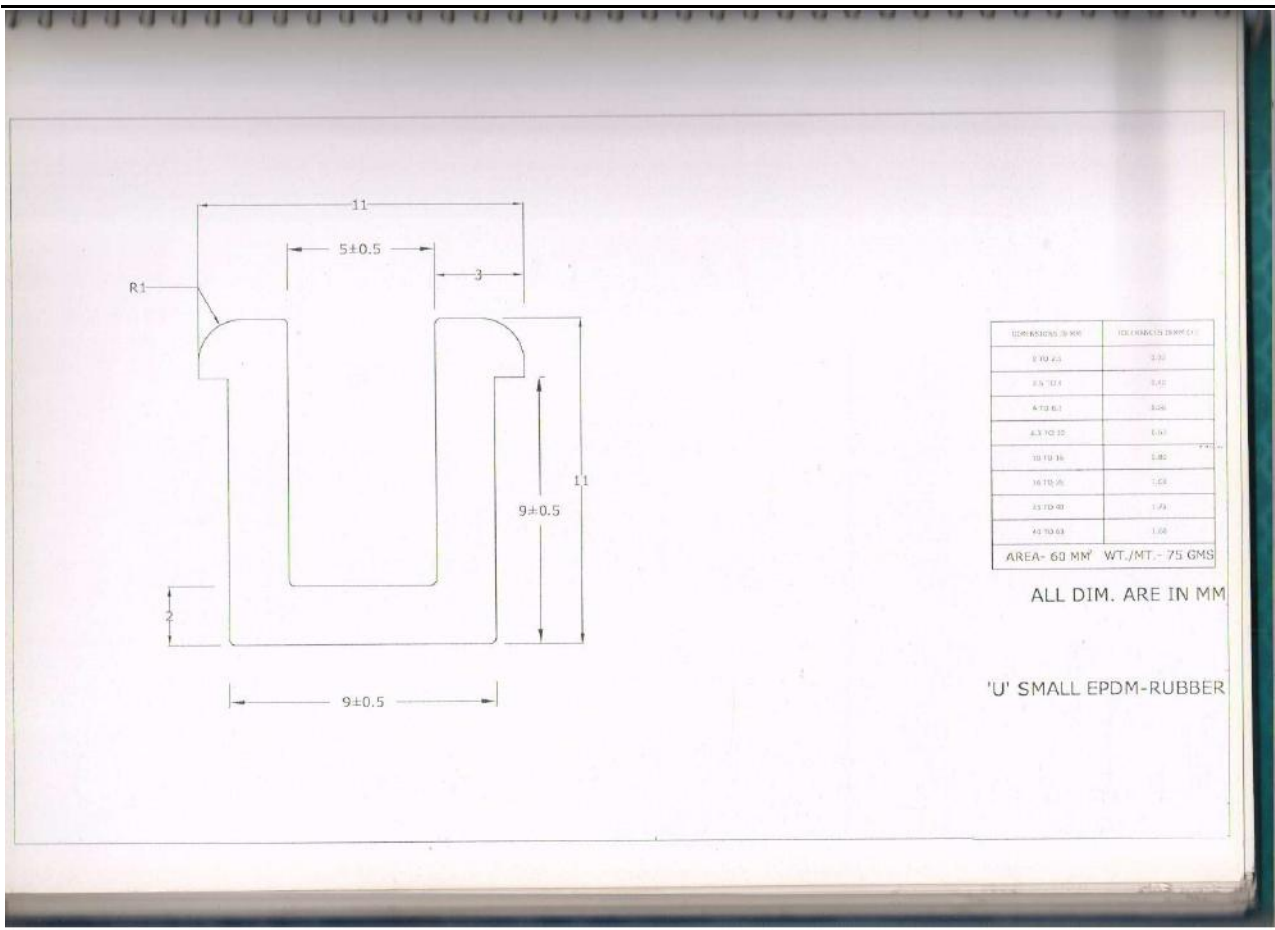
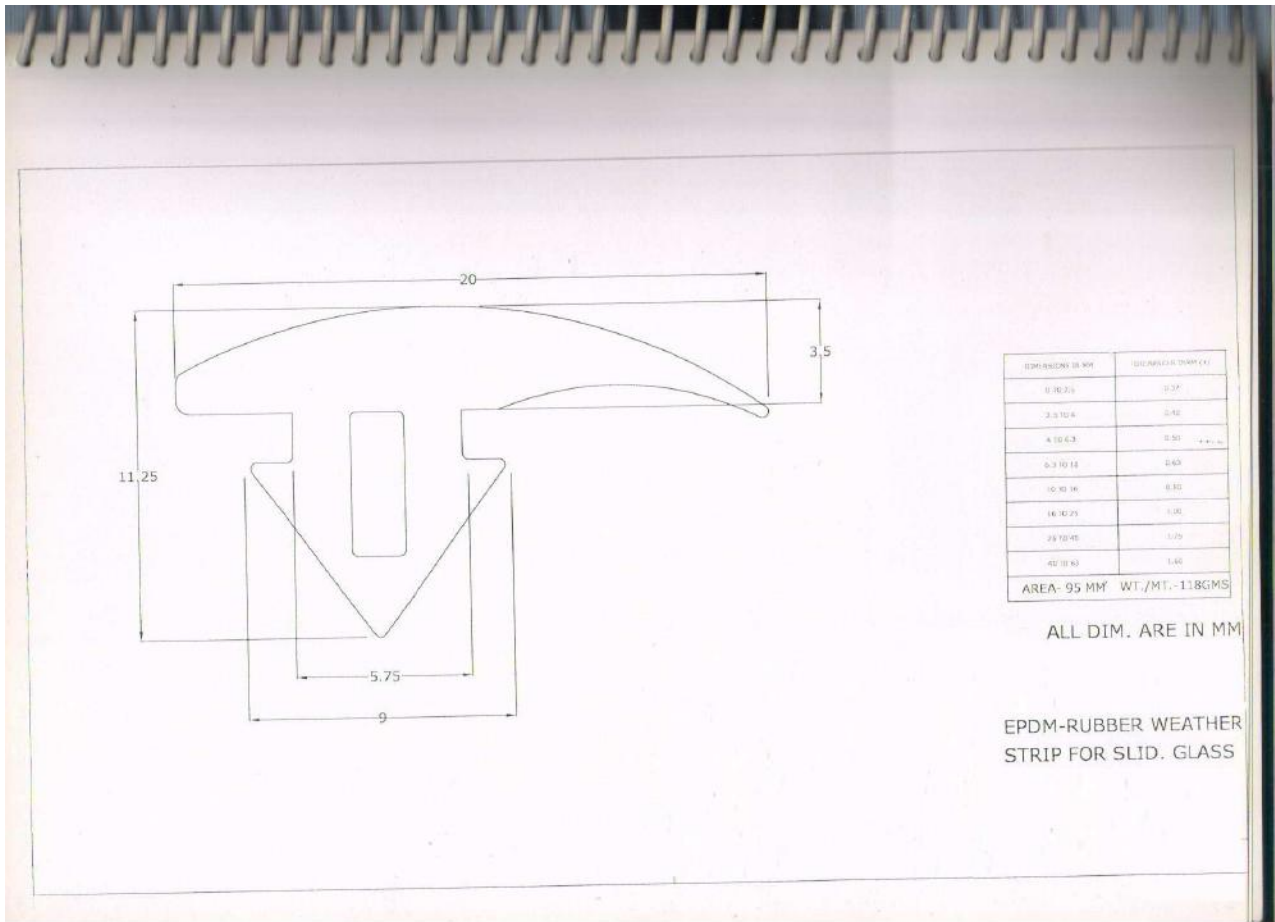
AREA-250 MM² WT./MT.-313 GMS

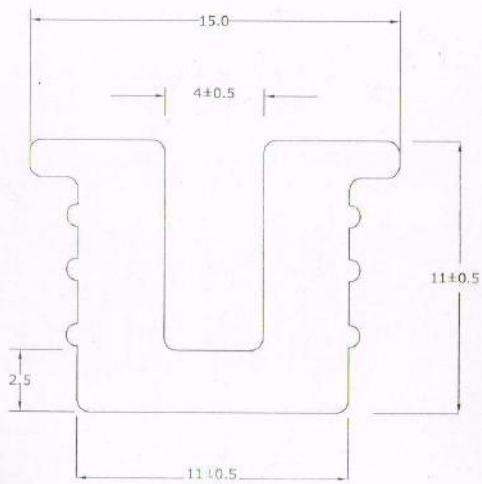
ALL DIM. ARE IN MM

PRESS EPDM- RUBBER







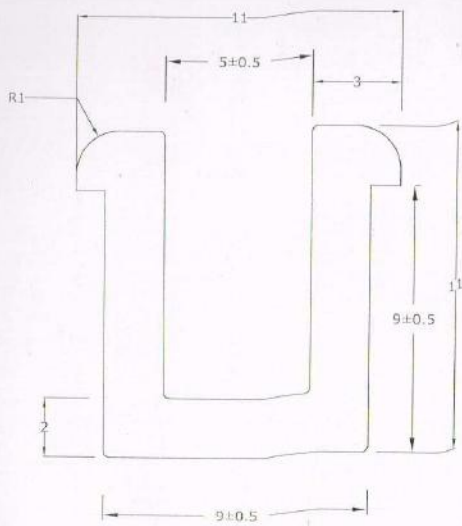


DIMENSIONS IN MM	TOLERANCES IN MM (+)
0 TO 2.5	0.20
2.5 TO 4	0.30
4 TO 6.3	0.50
6.3 TO 10	0.60
10 TO 16	0.80
16 TO 25	1.00
25 TO 40	1.20
40 TO 60	1.50

AREA- 100MM² WT./MT.-125GMS

ALL DIM. ARE IN MM

EPDM- RUBBER-U TYPE-BIG
SIDE WINDOW FIX GLASS

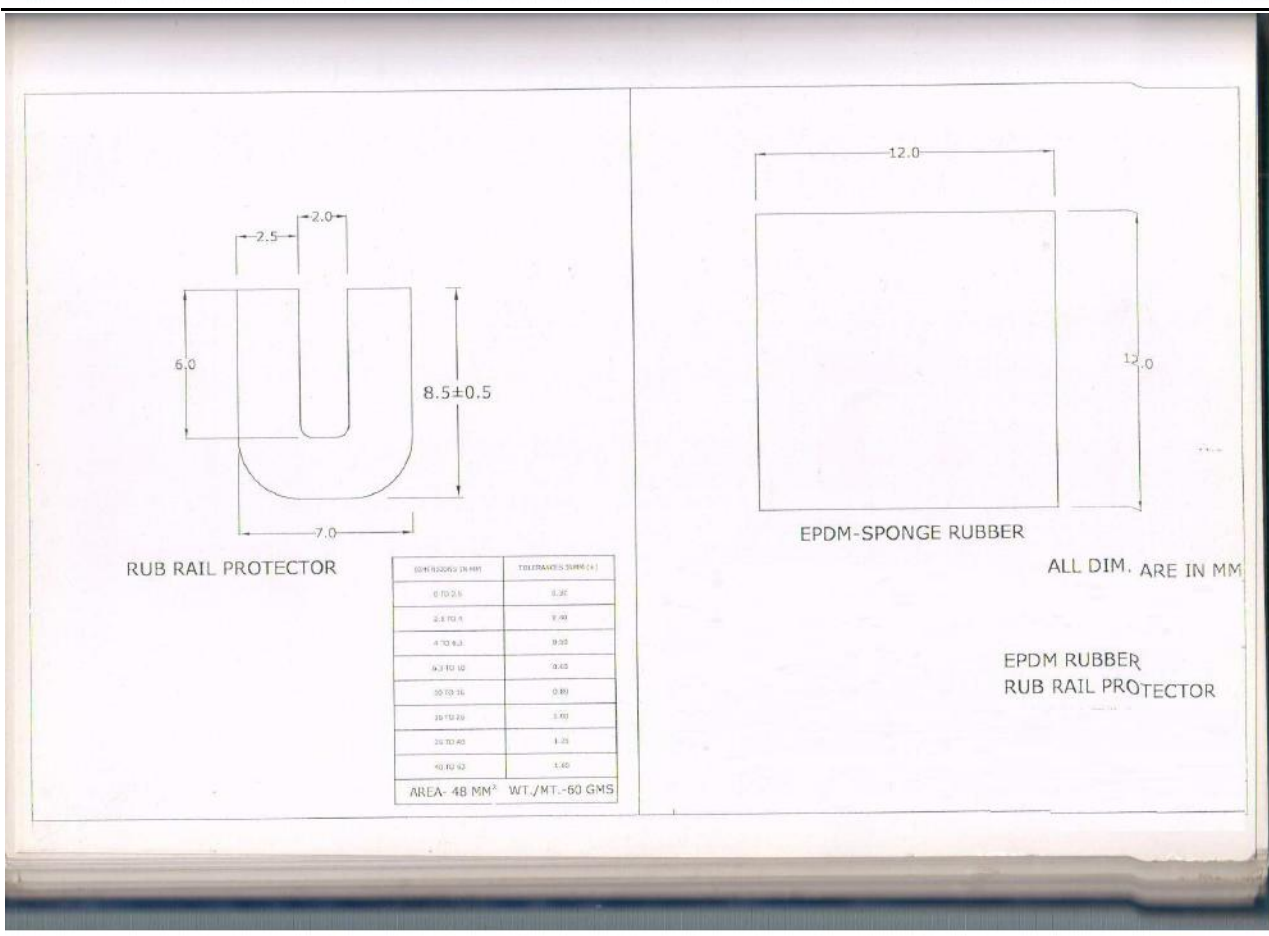
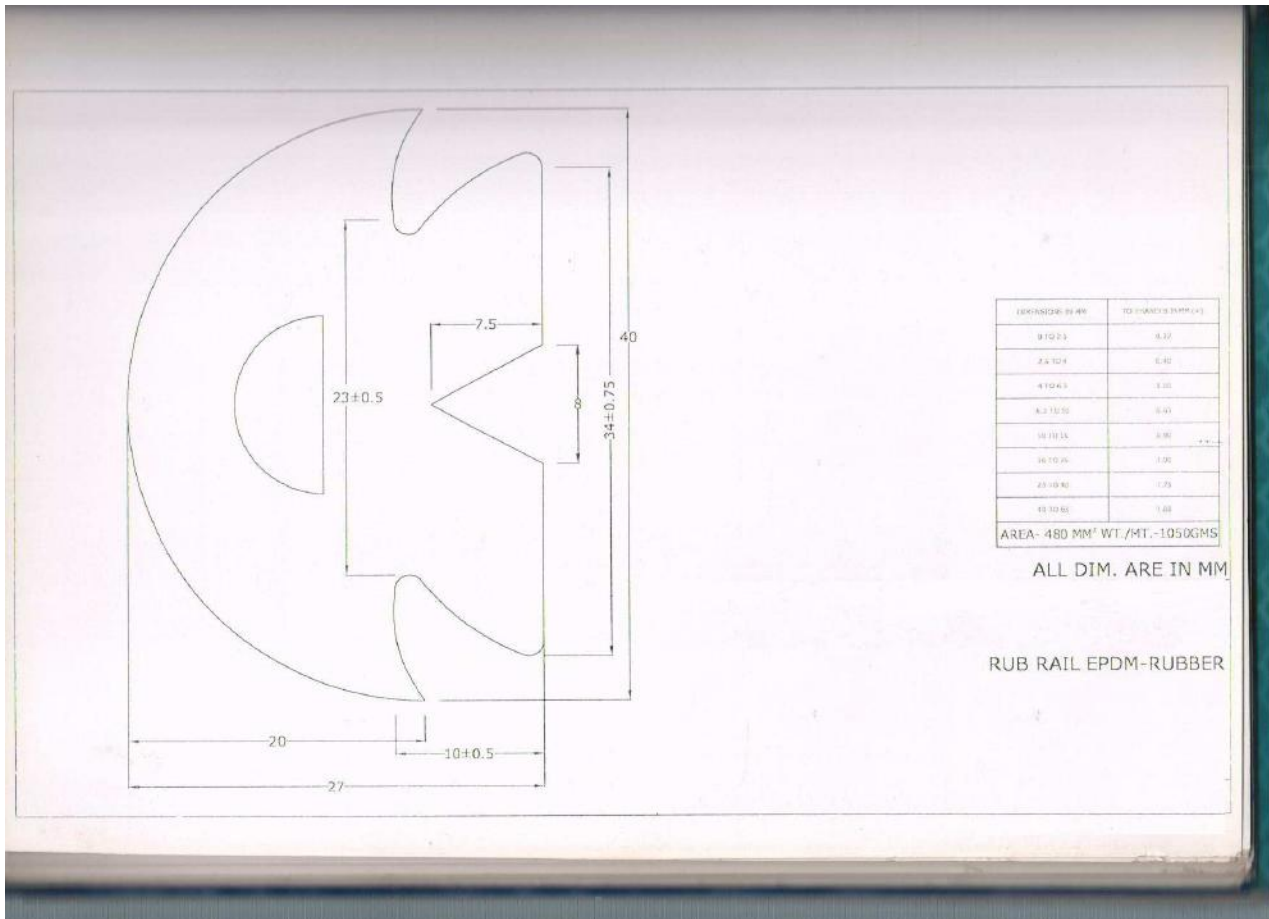


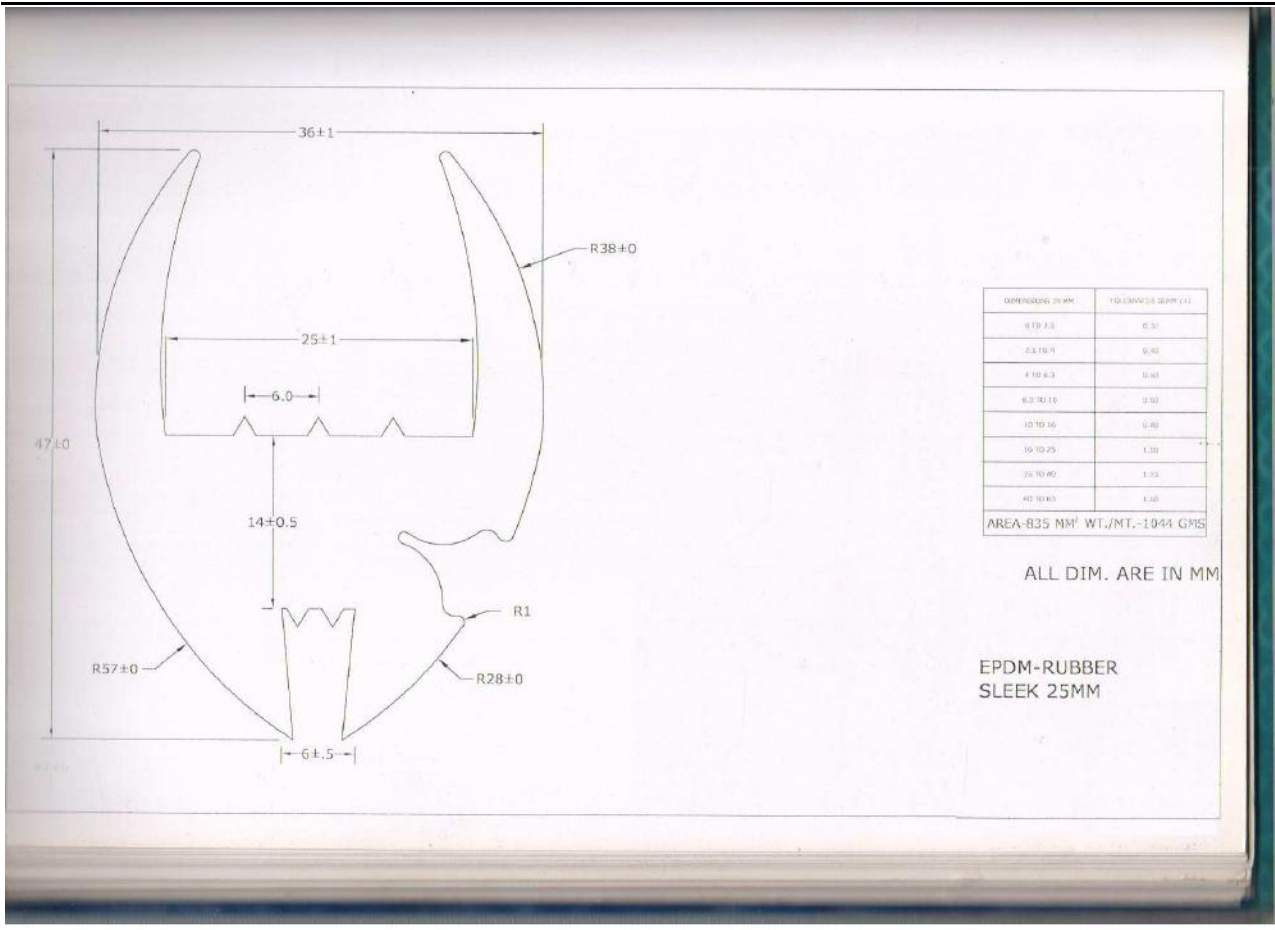
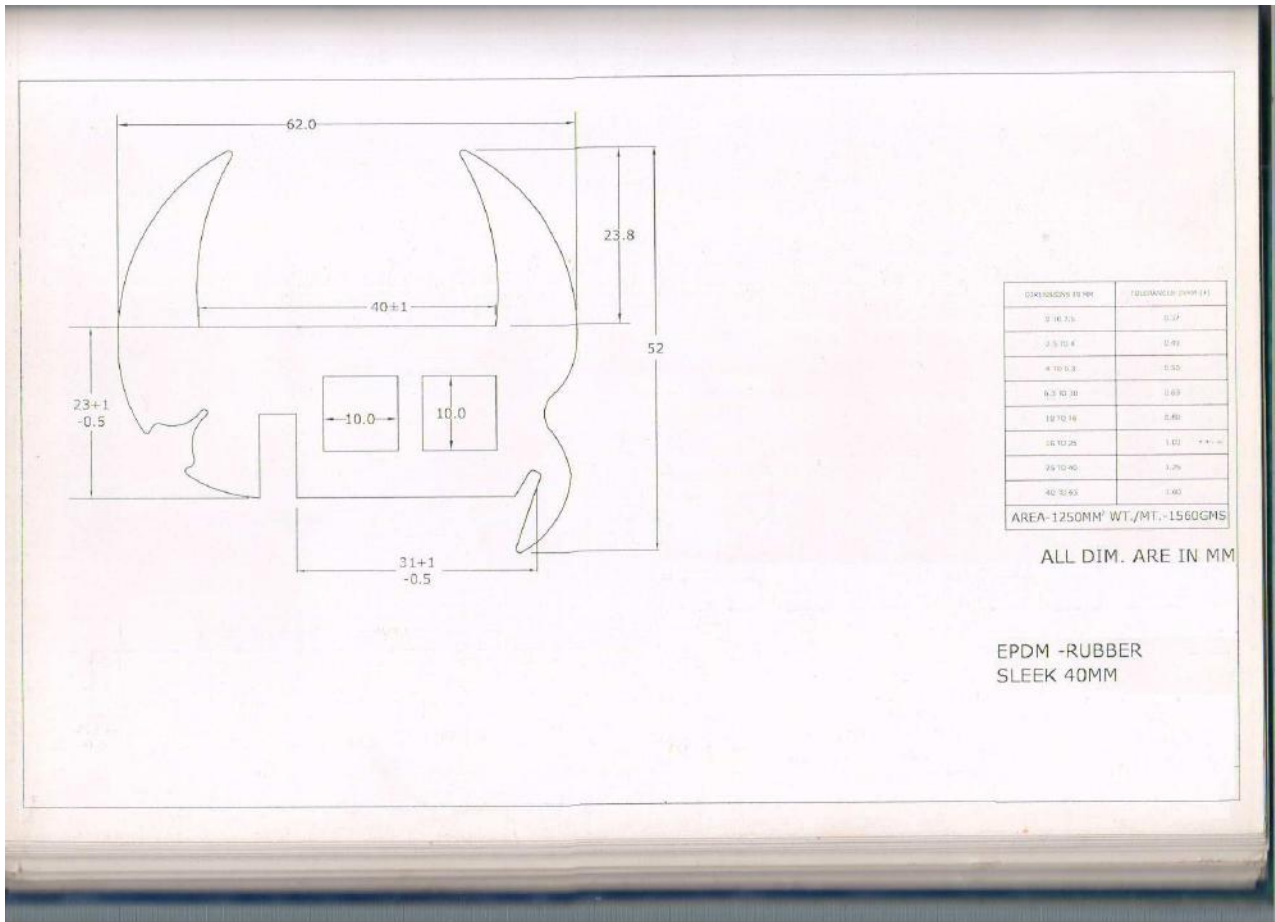
DIMENSIONS IN MM	TOLERANCES IN MM (+)
0 TO 2.5	0.20
2.5 TO 4	0.30
4 TO 6.3	0.50
6.3 TO 10	0.60
10 TO 16	0.80
16 TO 25	1.00
25 TO 40	1.20
40 TO 60	1.50

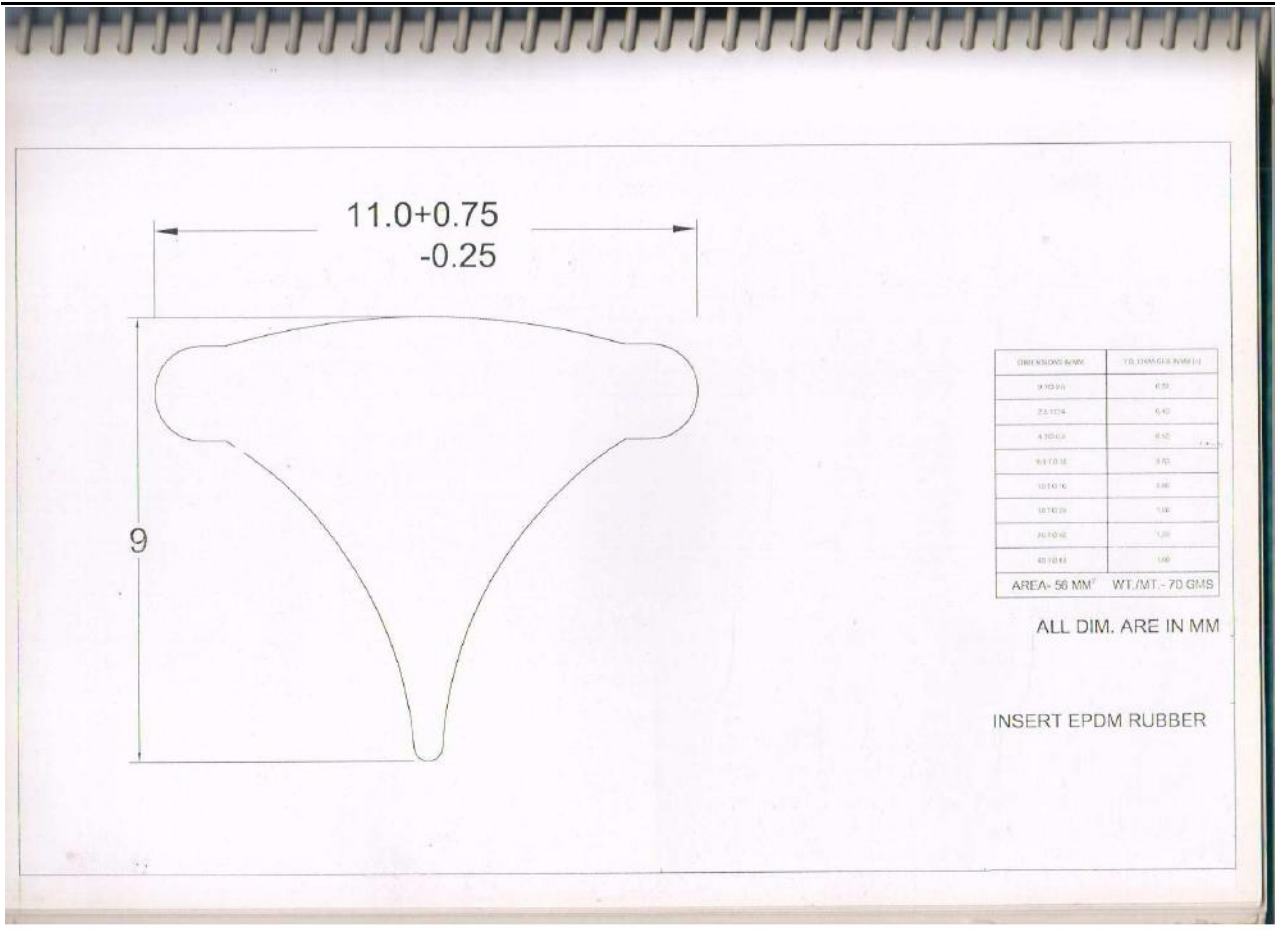
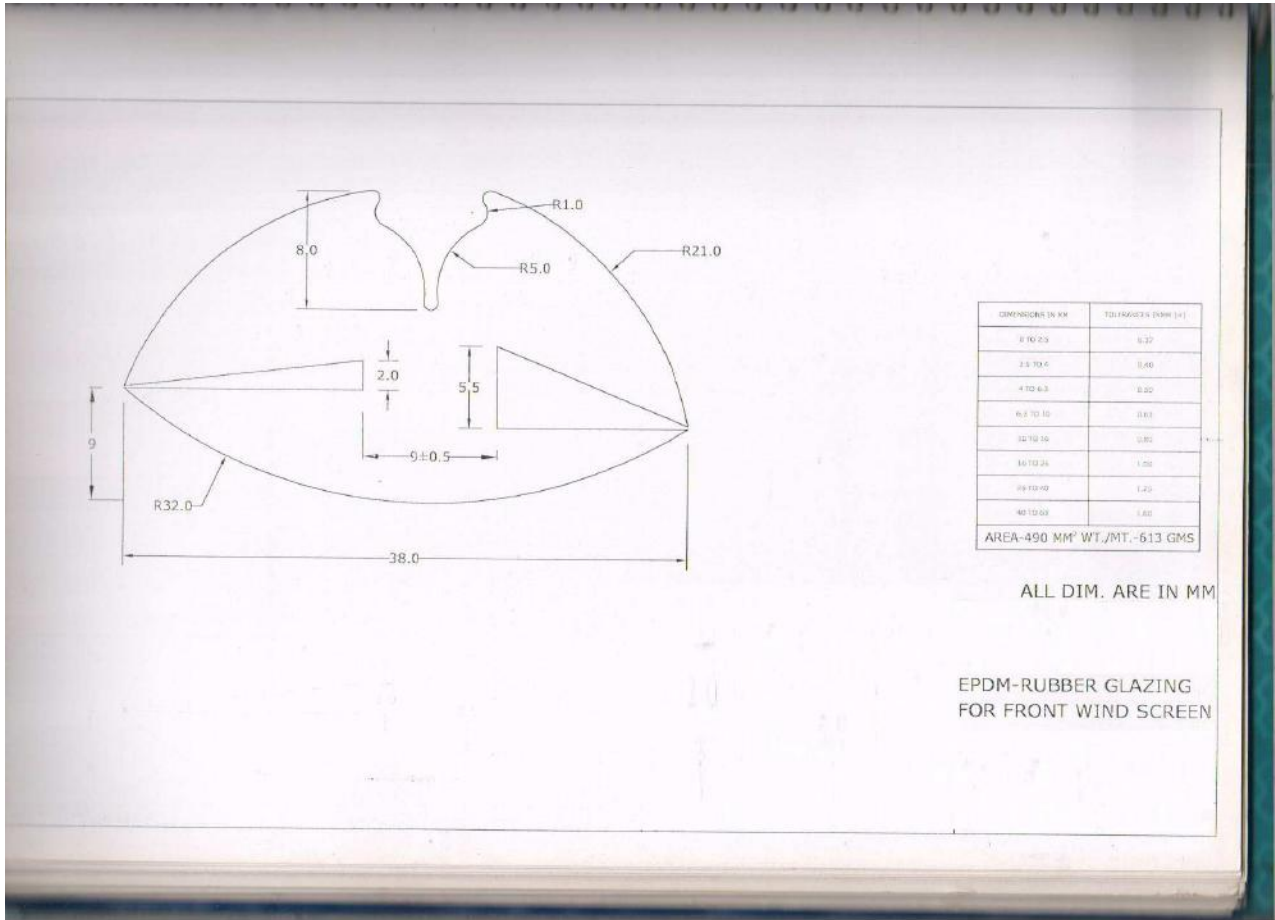
AREA- 60 MM² WT./MT.-75GMS

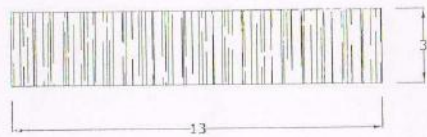
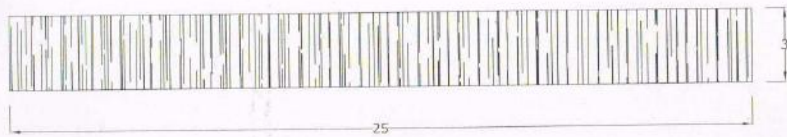
ALL DIM. ARE IN MM

EPDM-RUBBER U TYPE
SMALL FOR SLIDING GLASS



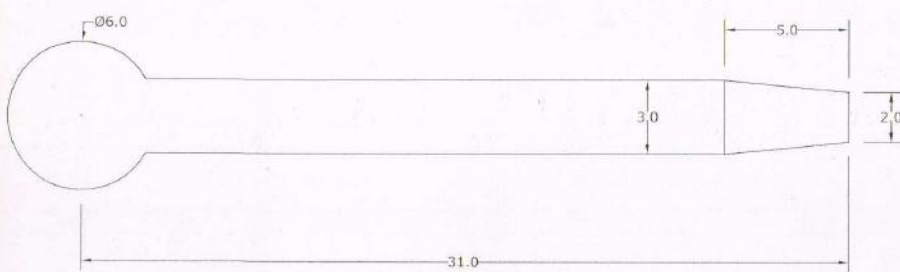
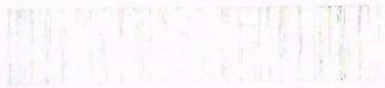






ALL DIM. ARE IN MM

EPDM RUBBER
FLAT STRIP

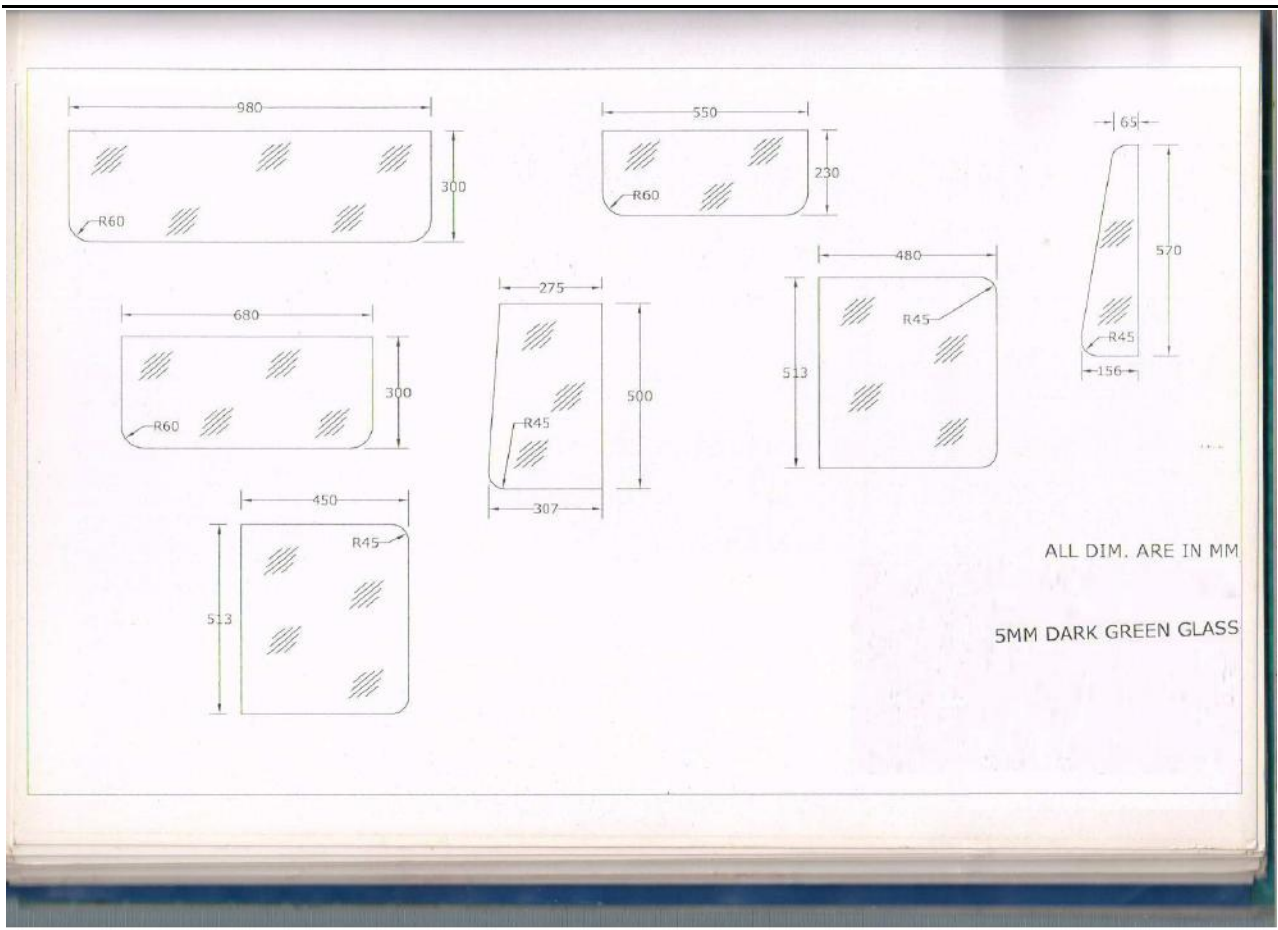
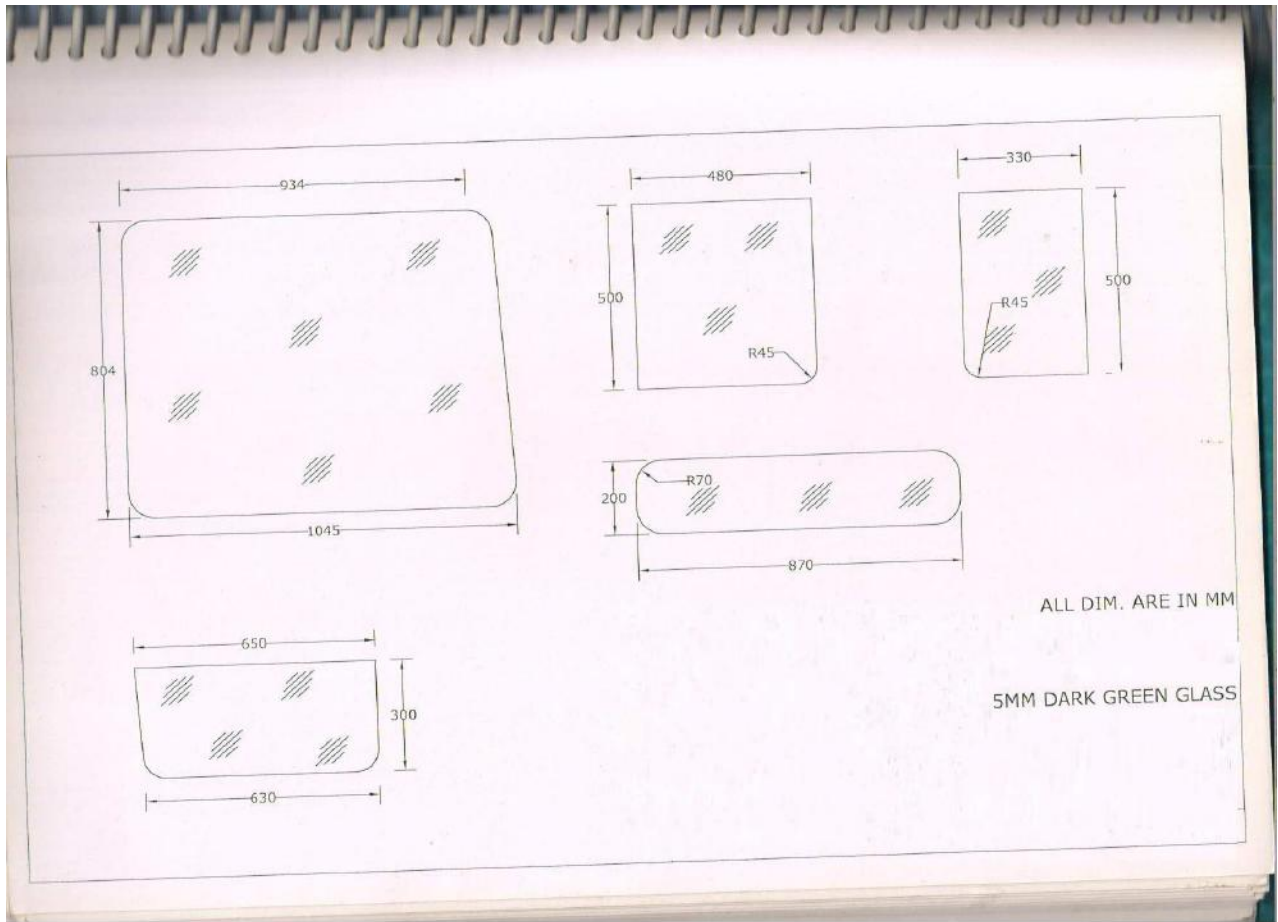


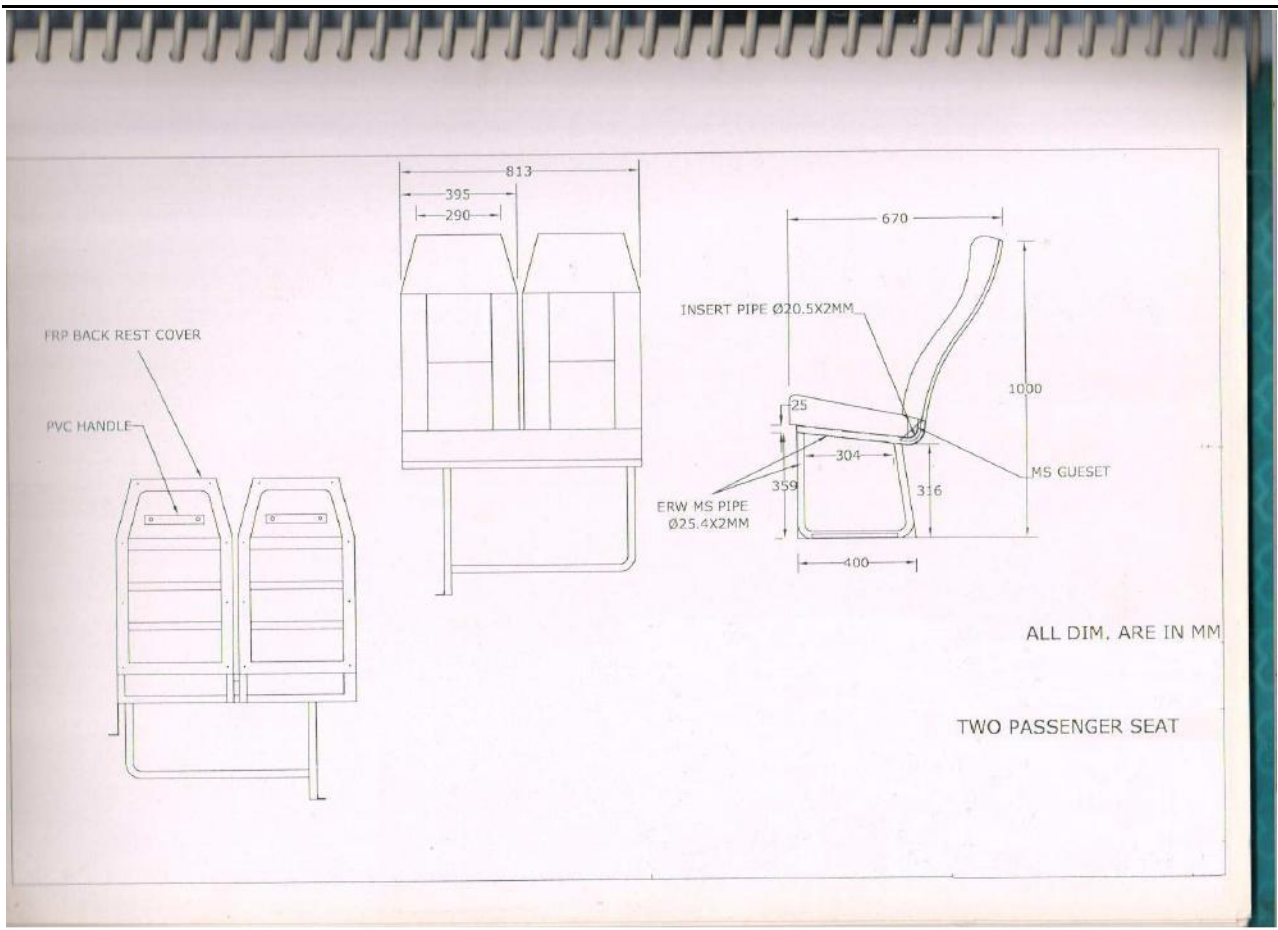
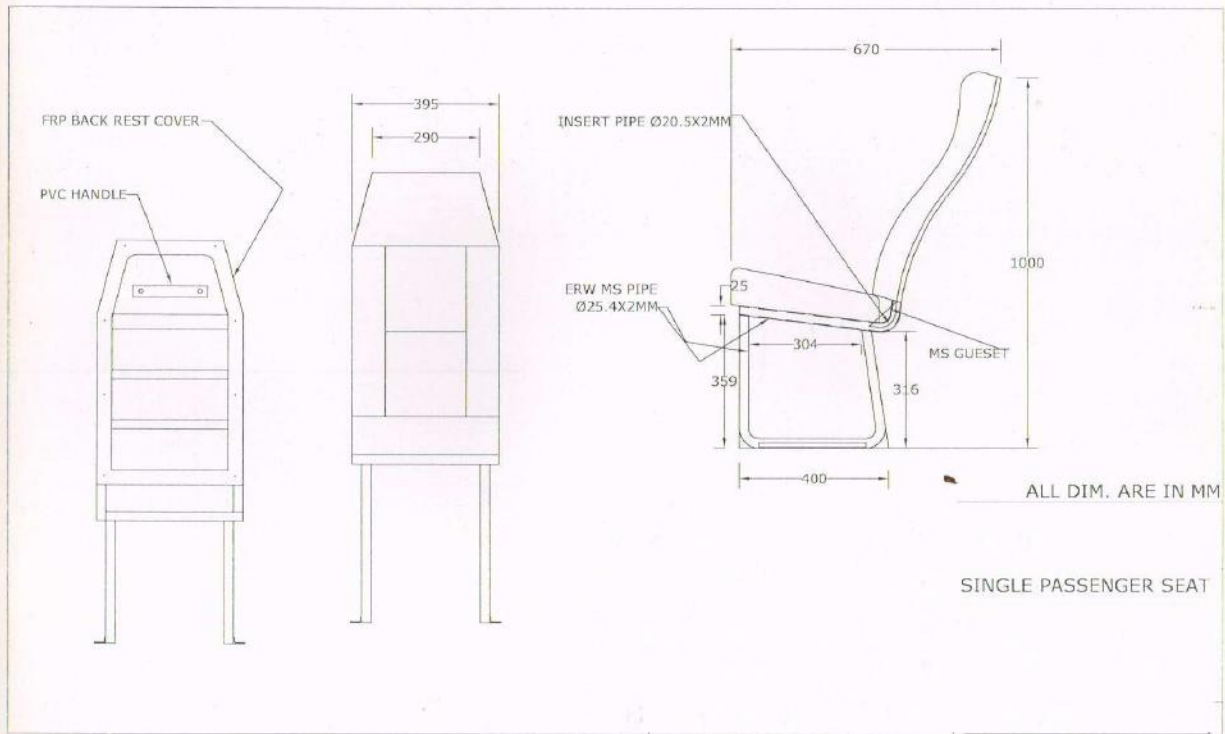
DIAMETER IN MM	TOTAL WEIGHT IN GRMS
2.10-2.5	0.27
2.5-3.0	0.48
3.0-3.5	0.52
3.5-4.0	0.67
4.0-4.5	0.85
4.5-5.0	1.08
5.0-5.5	1.26
5.5-6.0	1.63

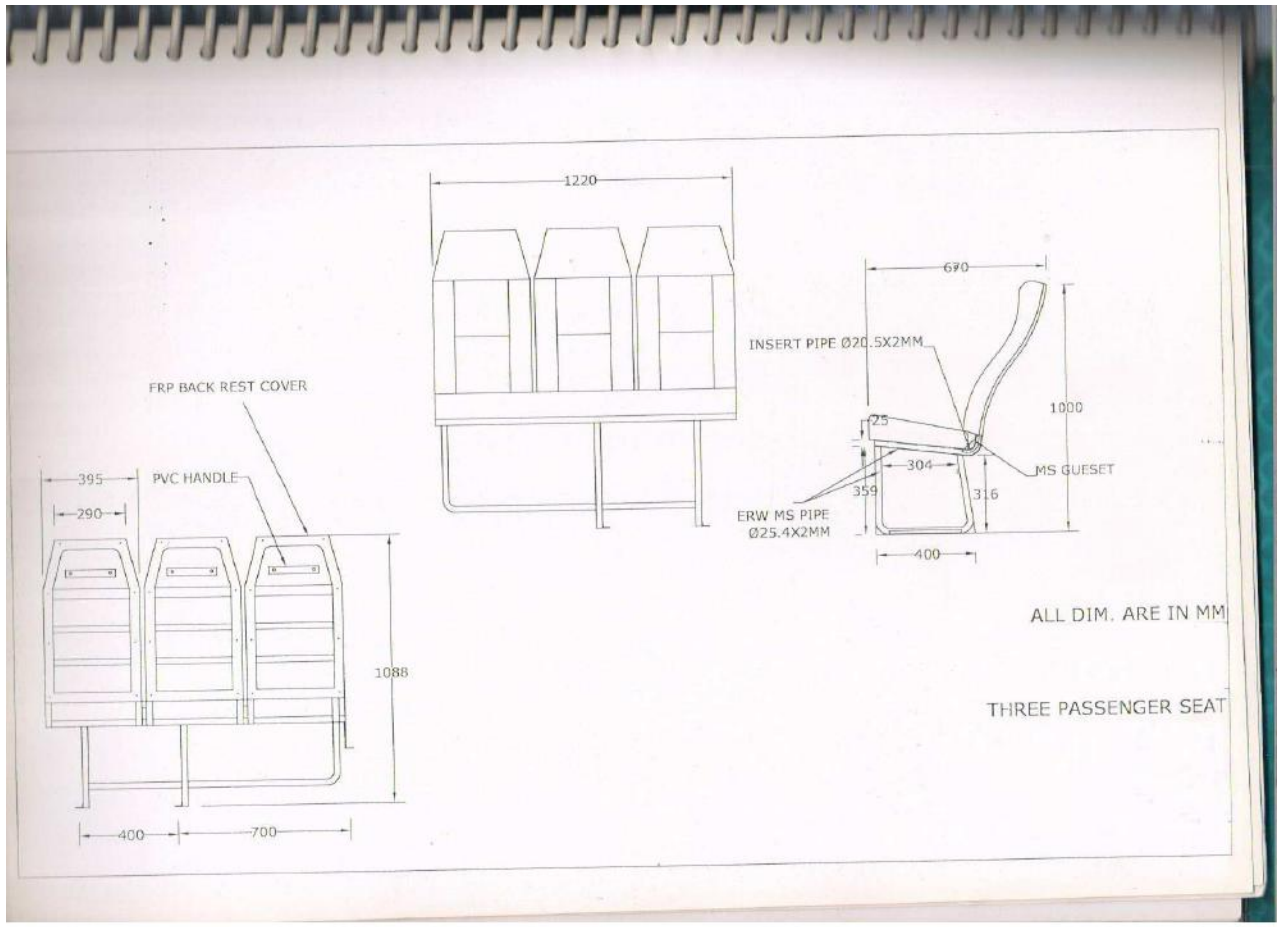
AREA-115MM² WT./MT.-144 GMS

ALL DIM. ARE IN MM

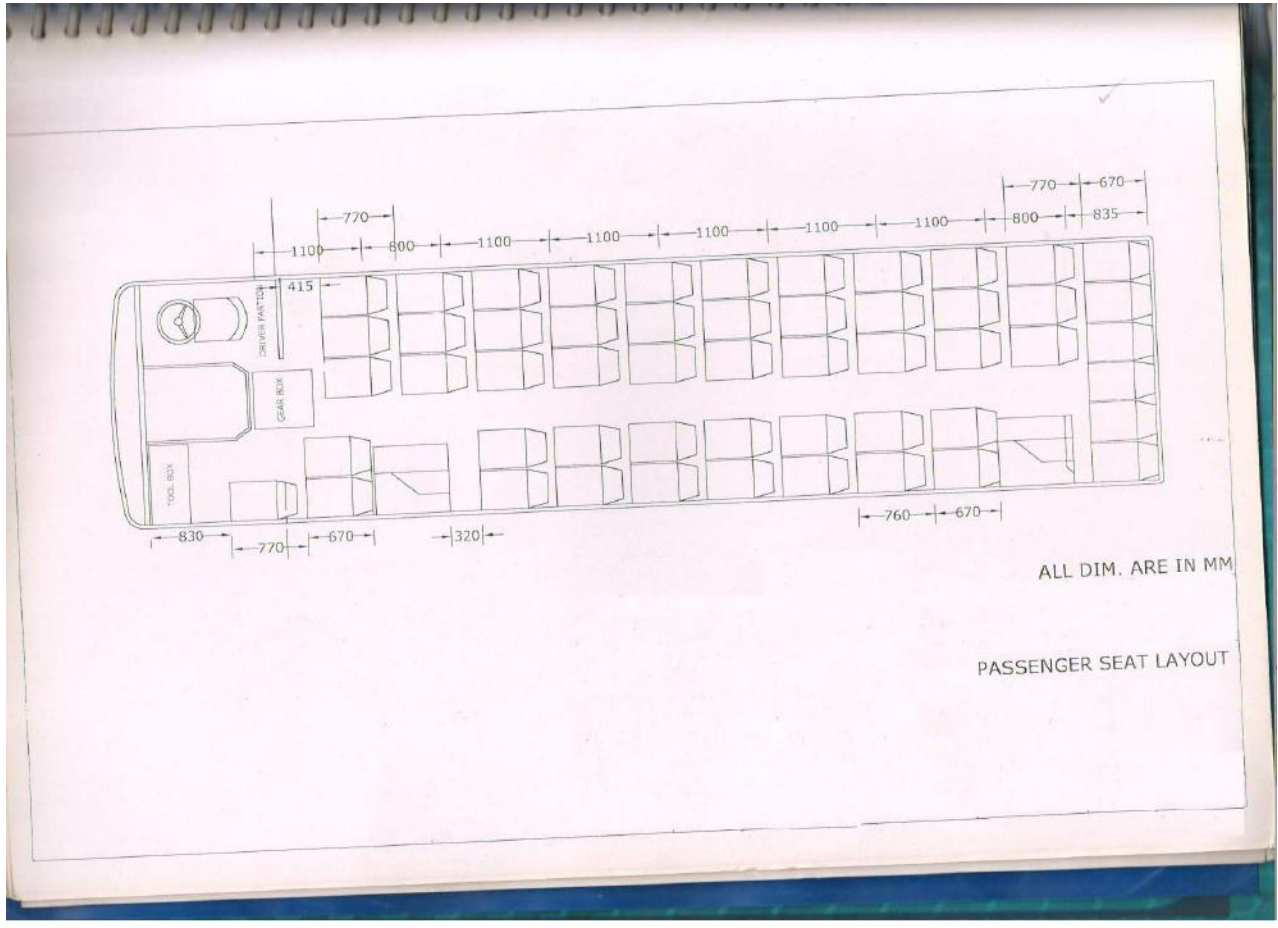
EPDM-RUBBER PACKING
FOR ROOF BEAM



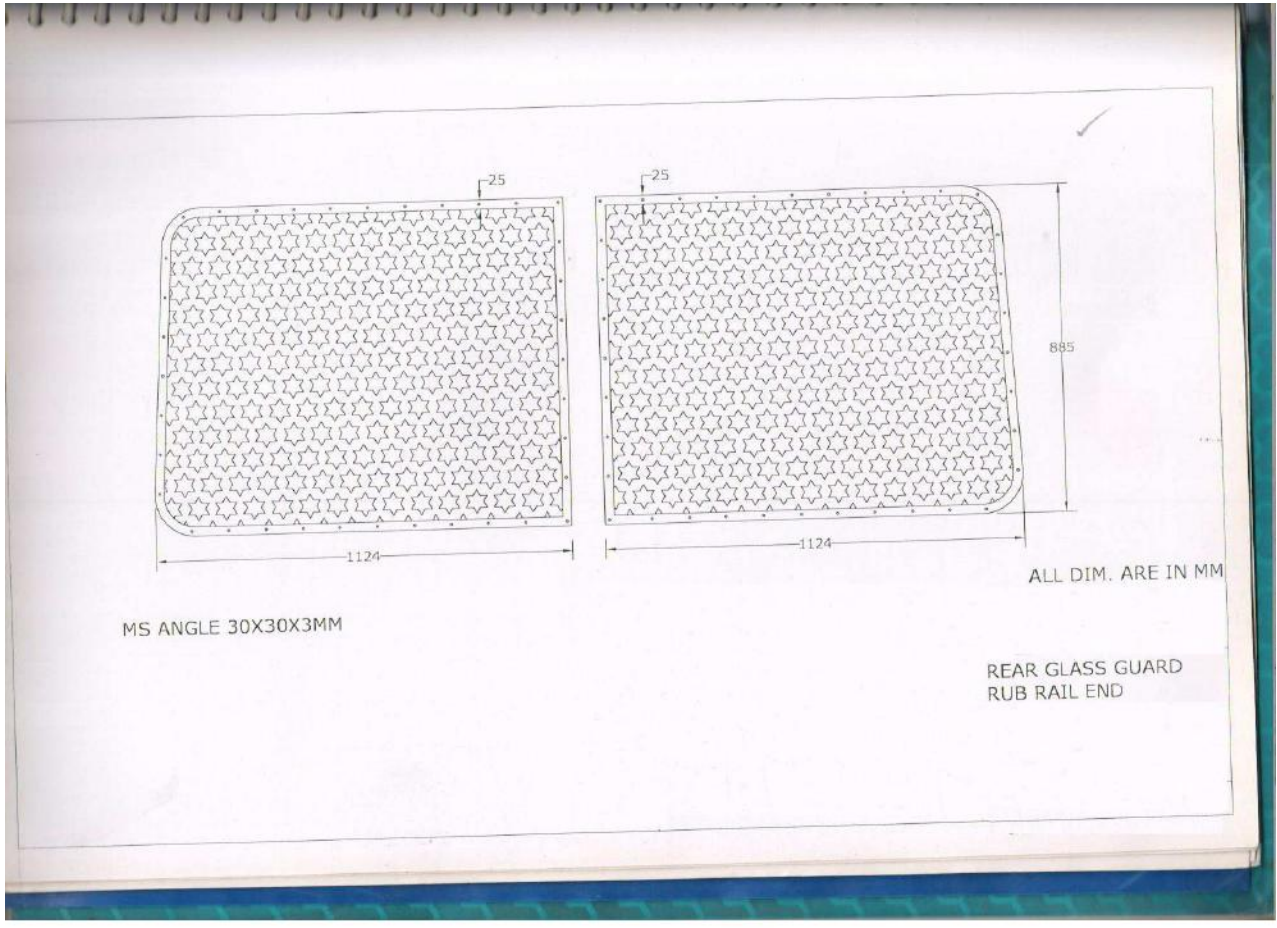




Above Three Drawings for passengers are indicative only. The seat pitch, seat width, seat height, seat cushion and other material will be subject to approval from Director Transport U.T. Chandigarh and Divisional Manger, Chandigarh Transport Undertaking and as per AIS-052.



Tool Box to be relocated to side of the Bus Body. The design to be got approved from Director Transport, U.T. Chandigarh from Divisional Manger, Chandigarh Transport Undertaking.



Annexure-13

Tools & Plants as per listed below:-

- i) Chromotising plant
- ii) Shower testing arrangement of complete vehicle
- iii) Battery charger of suitable capacity
- iv) Air compressor of high capacity along with Tyre inflating arrangement
- v) Panel stretching machine
- vi) Brake press machine of capacity minimum 100 MT
- vii) Sheering machine of capacity 6 mm thick
- viii) MIG welding equipments 10 nos. minimum
- ix) DG set minimum 200 KVA
- x) Suitable fixture for bending of roof sticks, pillers etc.
- xi) Pneumatic riveting machine minimum 04 nos.
- xii) Portable drill machine, grinders and other hand tools required for fabrication work
- xiii) Side panel rolling machine
- xiv) Roof panel rolling machine
- xv) Paint booth for PU metallic paint
- xvi) Minimum bus body building capacity=25 no. per month